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ABSTRACT

This research was aimed at an analysis of classroom activities which make up educational programs for young children. Its broad purpose was to analyze systematically and to make comparisons among six preschool programs in order to describe the patterns of activity settings used; the objectives activity settings were designed to reach from the point of view of their designers, classroom teachers; and the social behaviors of teachers and children which are shaped and molded by the requirements of settings and which have not necessarily been planned for or recognized by teachers. The six preschool settings used for the study include a Montessori nursery school, a Head Start program, two laboratory nursery school classrooms, a franchise day care center, and a community day care center. The first section of the report contains discussion of related research, a theoretical model, the six preschool classrooms, and the research procedures. The presentation of the results comprises the rest of the report. The findings are divided into three parts: a quantified picture of six classrooms in terms of activity characteristics and social interaction; an exploration of the relations between the activity and social interaction values; and an examination of the relationship of the personal characteristics of the children to activity participation and social interaction. (SDH)

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AN ANALYSIS OF ACTIVITIES IN PRESCHOOL SETTINGS

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INTRODUCTION

This research was aimed at an analysis of classroom activities which make up educational programs for young children. Its broad purpose was to analyze systematically and to make comparisons among six preschool programs in order to describe the patterns of activity settings used; the objectives activity settings were designed to reach from the point of view of their designers, classroom teachers; and the social behaviors of teachers and children which are shaped and molded by the requirements of settings and which have not necessarily been planned for or recognized by teachers.

In examining these questions, this investigation responds to several research needs in the area of observational studies of young children in classrooms. It responds to the need, stated by Rashid in the 1968 Head Start Research Seminar Number 2, to take a careful look at the ecology of classroom activities teachers design for children. To what extent is behavior dependent on its environmental context? How do activity settings coerce teachers and children to respond in certain ways? According to Rashid, most studies of classroom management have adopted too narrow a focus in examining only teachers' interactional behavior with children. A broader, ecological viewpoint takes into consideration the teacher's arrangement of time, space, materials, pupils, and herself into various constellations of a learning environment.

Research carried out on camp settings and elementary school classrooms (Gump, Redl, and Schoggen, 1957; Gump, 1967; 1969; Hughes, 1959; Kounin, 1966) indicates that environmental contexts shape the behavior of individuals occupying them. However, Gordon and Jester (1973), in reviewing observational studies of early childhood programs in the Second Handbook of Research on Teaching, point out that although many researchers have included information about physical arrangements in observations of classroom behavior, these data do not seem to be used to the fullest extent as part of the basic analyses. They state that it cannot be determined from past studies whether there are relationships among teacher and pupil behavior, subject matter to be learned, activity to be conducted, and size and composition of the group. Research to date gives only the grossest indications about many of the ecological factors present in the preschool classroom.

RELATED RESEARCH

Gump (1967) points out that several investigations of classroom behavior have used environmental or ecological terms, but very few have comprehensively identified and measured the activity sub-environments which teachers establish with and for their pupils.

Studies of Classroom Interaction

The majority of observational studies of the preschool classroom, in focusing primarily on interaction between teachers and children, can be said to take the point of view that the teachers' inputs to the child are the most important aspect of his learning environment. This approach to the conception of the classroom environment has been described by Gordon (1966) in a chapter and entitled "The Ecology of the Classroom" is exemplified by the following recent representative investigations:

Stern's (1967) Preschool Environment Inventory, employed as part of the National Evaluation Program of Project Head Start, is comprised of checklists which focus on the teacher, her mode of teaching, and the quality of her relationship with children both individually and as a group. Although checklists are employed to rate the physical environment, materials, and equipment, the relationship of these factors to teacher-child interaction is not explored.

Soar (1970) has been gathering data on several systematic observation schedules as part of the National Evaluation Program of Project Follow Through with the intent of finding out (1) whether it is possible to determine if a program implements what it intends to do by examining teacher behavior and (2) whether there are any significant relationships between teacher behavior and child performance. One of the observational instruments employed is the Florida Affective Categories (FLAC) which looks at teacher and pupil expressions of affect in the classroom and controlling behaviors of teachers and responses of children to them.

Although Garfundel's (1967) research on Head Start allows for the possibility of examining the relationship of activity setting characteristics to teaching styles, its primary aim was to examine the relationship between selected aspects of teacher style and changes in mental ability, academic achievement, personal-social development and creativity. Seminars were held in which observer-teachers discussed classroom observations and developed eight scales based upon what they considered to be the most important characteristics of teacher style in classrooms. Observers then made global ratings on the scales and produced reports on behaviors in the classrooms in which they observed. In addition, filmed classroom sequences were coded according to a curricular scalematic which analyzes activities on several dimensions. These filmed sequences were also rated on the scales developed by the observers.

Conners and Eisenberg (1966) studied thirty-eight teachers in a summer Head Start program. Observers recorded episodes of teachers' classroom activities and rated them on the basis of the implicit goals which these statements were designed to serve, such as the development of the concept of self, consideration for others, intellectual growth, or neatness. They reported relationships between teacher behaviors and growth on the Peabody Picture Vocabulary Test.

Katz (1968) compared two types of Head Start classrooms using the Teacher Behavior Survey Instrument and the Child Behavior Survey Instrument. The first instrument records teacher behavior on six major dimensions: contact, teaching, feedback, control, nurturance, and dominant tone, as well as categorizing a rough description of the type of activity going on in the classroom. The second instrument looks at the child in terms of task absorption, attention to the teacher, cooperative work with other children, intent on nonpermitted work, armless movement, disruptive behavior, and mood. Katz found relationships between teacher and pupil behavior and examined the way in which teacher behavior influences pupil behavior.

Spaulding (1967) made observations of teacher-pupil behavior in a special program for disadvantaged children. Two instruments were developed: (1) the Coping Analysis Schedule for Educational Settings, which examines thirteen categories of behavior, reflecting the person's relationship to his external environment (e.g., aggressive behavior; manipulating; resisting authority; paying close attention); and (2) the Spaulding Teacher Activity Rating Schedule, which consists of eight major categories of teacher operant behavior (e.g., approval, disapproval, structuring) and two social behavior management categories used in conjunction with disapproval (removal of child from social setting and withholding an object or privilege). The two instruments can be used together to develop a transactional view of teacher and pupil behavior.

Miller et al. (1969, 1970) developed an observational system to assess teacher and pupil behavior in Head Start classes using different curricular approaches. They devised a tally sheet into which entries were made every fifteen seconds for both live observation and video tape samples.

The entries consisted of type and size of group and type of activity in addition to media and teaching technique. Miller, et al. found program differences in classroom observations. Although the observational system allows for determining some relationships between activity context and teacher-pupil behavior, the major aim of this research was to differentiate teacher behavior in relation to philosophical emphases of programs.

Studies of Preschool Activities

From research evidence, it cannot be disputed that teachers' inputs are highly relevant aspects of children's surroundings in classrooms, but, as Gump (1967) has pointed out, the teacher-move conceptualization of the classroom environment presents too narrow a slice of the context in which children and teachers function. The roles and styles of teaching are not the only determinants of the outcomes of preschool education. Size of the center in terms of the number of children served, the quality and quantity of physical space and equipment, and the nature of the activity in which individuals are involved are also important factors in determining what teachers and children do (Katz, 1970). A few researchers have focused on a broader view of the environment by placing emphasis upon description and study of the larger activity context of the classroom, but they have not examined teacher-pupil behaviors from the ecological point of view of how they are related to and molded by activity settings in which they are embedded.

As part of the National Evaluation Program of Project Head Start, Stern (1969) employed an instrument called the Classroom Observation of Substantive Curricular Input (OSCI). It records ongoing activities of the class, as seen by an observer, during sample days. The OSCI permits classification on such factors as whether teachers or children control activities, the proportion of time spent in free play, in small groups, in activities which develop small muscle skills, and those which develop language skills. These variables were compared across curricular programs and related to cognitive outcomes.

Goodman's (1968) focus in studying Head Start classroom activities was to find out what, in reality, a Head Start classroom looks like in terms of typical activities. He applied the Goodman Observational Technique which enabled him to tabulate frequencies and percentages of activities and materials used in thirteen Head Start classrooms.

Karlson (1971) studied forty preschool children in a Montessori environment and collected short-term longitudinal data by making periodic five-minute behavior stream records on the children during one year. He coded the activities in which children participated into fourteen categories and found that individual children select activities in unique ways. He related their choices to cognitive outcomes.

Among the investigations which have examined characteristics of activities in relation to teacher and child behaviors and which therefore share much in common with the present study are the following:

Reichenberg - Hackett (1962) studied ten nursery school classrooms using a specimen-description technique of teacher behavior. The observations were divided into episodes which were coded for the activities in which the teacher is involved, the motivating techniques she uses, the lessons she teaches, and the implicit goals she emphasizes in the lessons. These categories were related to one another. This study examined only teacher behavior in relation to activity characteristics and did not yield data on interaction between teacher and pupil behavior as influenced environmental variables.

Prescott and Jones (1967) applied the Reichenberg - Hackett categories to the study of day care centers. They modified and extended the categories to include the study of children's behavior, rated according to level of interest and involvement in activities. This made it possible to relate activity characteristics, teacher motivating techniques, lessons, values, and child behavior to one another and, therefore, to achieve the major research purpose of obtaining an overview of the functioning of the day care center as a total working unit. Some examples of behavior-activity settings links found by Prescott and Jones are that free choice activities are more likely to elicit high interest and involvement by children, whereas teacher-directed activities toward individual children elicit many responses in the low interest category. In addition, positive responses from children are related to activities in which the teacher emphasizes verbal skills and to lessons in consideration, creativity, pleasure, awe, and wonder. Negative child responses result from lessons in control, restraint, and rules of social living.

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Stodolsky's (1971) research on the way in which children spontaneously go in and out of classroom activities also explored the relationship of child behaviors to activity characteristics. She found that the overall pattern of friendly versus aggressive social interaction among children is not any different when children are directly involved in an activity than when they are in transitions between activities, except for dramatic play, in which there is a higher density of friendly social interaction.

Yarrow (1970) has developed the Preschool Time Sampling Observational System, which is an attempt to describe the experiences of an individual child in a preschool classroom. The system defines the child's experience in terms of teacher behavior, child behavior, and characteristics of the broader environment and therefore makes possible determinations of relationships between behavior and environmental variables. Teacher behavior categories describe teachers' managing, cognitive, or reinforcing aspects. Child behaviors include cognitive and social activities, the child's level of attention, and his affective state. The broader environment is characterized in terms of the degree of structure imposed by the materials, the child's freedom of choosing an activity, and the social setting in which the child behavior is observed.

Uniqueness of the Present Investigation

Though the observational variables employed in the present investigation are similar to some of those used in the studies cited above, this investigation differed from them in several important respects:

(1) It employed a behavior setting conceptualization of the classroom environment, drawn from the discipline of ecological psychology, in order to develop a more comprehensive way of identifying and describing activity units in preschool environments. For the most part, the above studies treat activity setting variables as necessary frames of reference for research that focuses on the relationship of teaching strategies to children's behavior. In contrast the present study treats environmental variables as the research target and studies teacher and pupil behaviors in order to clarify the nature and impact of environmental phenomena. Gump (1967, 1969) has studied the elementary school classroom from the ecological point of view. His work served as a major stimulus for the conceptualization of preschool activities in this investigation.

(2) This study stresses that teachers as well as children can be coerced by classroom settings. In previous studies, either teacher behavior or pupil behavior has been considered separately in relation to activity setting variables. When both teacher and child behaviors have been examined, the main object of study has been the teacher's ability to influence the child. In this study the power of the child to influence the teacher as well as other children is also studied as it is influenced by activity setting characteristics.

Therefore, this research undertakes a more complete investigation of social interaction as it relates to classroom ecology. Previous research (Gump, Redl, and Schoggen, 1957) has shown that in the camp setting, social behavior of leaders _and_ children is coerced by setting variation. If also found in school settings, this finding suggests ... "that although a teacher can control activity selection, an activity once begun can control the teacher" (Gump, 1967). Examining not only teacher inputs to children, but also children's inputs to teachers and to their classmates offers a more dynamic conceptualization of ways in which teachers as well as children are controlled by the classroom environments they share with one another.

THEORETICAL MODEL

The concept of environment employed in this research was described by Barker and Wright in their volume _Midwest and Its Children_ (1955) and further developed by Barker in _Introduction to Ecological Psychology_ (1968). From the viewpoint of ecological psychology, the classroom is a behavior setting. The activity units within it, such as storytime, dramatic play, and painting at the easel, are types of subsettings. The behavior setting conceptualization includes the physical arrangements and materials of the setting, but emphasizes that behaviors which complement the physical milieu are also necessary to identify and describe the setting. In addition, the behavior setting is seen as a context for persons and their behaviors. It is not limited to a description of how one person's behavior functions as an environment for another.

Barker (1968) describes behavior settings as having both _structural_ and _dynamic attributes_.

Structural Attributes

Structural attributes refer to the parts of a behavior setting, which consist of (1) standing patterns of behavior; and (2) milieu.

Standing patterns of behavior are the primary actions which are generally established in the setting. They occupy specific positions in time and space and have unique characteristics which persist even if the individuals participating in them change. Examples of standing patterns of behavior in the preschool setting are: children listening to a teacher read a story; girls playing house; and children riding bicycles. These behavior patterns are attached to particular groupings of non-behavioral phenomena, or milieu.

Milieu represents the non-behavioral phenomena in the setting. The milieu in the case of the preschool classroom is a particular room in a particular place with objects distributed in a particular pattern. The milieu is synomorphic to standing patterns of behavior. Behaviors and their milieu have a fit; they complement one another. For instance, when preschool children are engaged in a story-telling activity, the children's chairs (milieu) and the listening children (behavior) face the teacher's chair (milieu) and the teacher reading (behavior). According to this point of view, the components of the classroom behavior setting are not just physical things and areas of the room, even though it has been customary to think of environments in this fashion. Depending upon the activity, the classroom environment is also composed of behaviors which are inextricably linken to the physical aspects of the setting. In Barker's terms, these linkages are termed behavior-milieu synomorphs. Structurally, the classroom setting is a set of such synomorphs, or activity subsettings.

Dynamic Attributes

Dynamic attributes refer to the interrelationships among the parts of behavior settings, or, in terms of the classroom, relationships among the behavior-milieu synomorphs which define activity subsettings. For example, storytelling, house play, and playground activities are structurally discrete, but dynamically interdependent because of spacial and temporal proximity and common participants. Therefore, within the single behavior setting of a preschool classroom, changes in one subsetting can result in changes in others.

A diagram of the relationships among the above concepts may be found in figure 1.

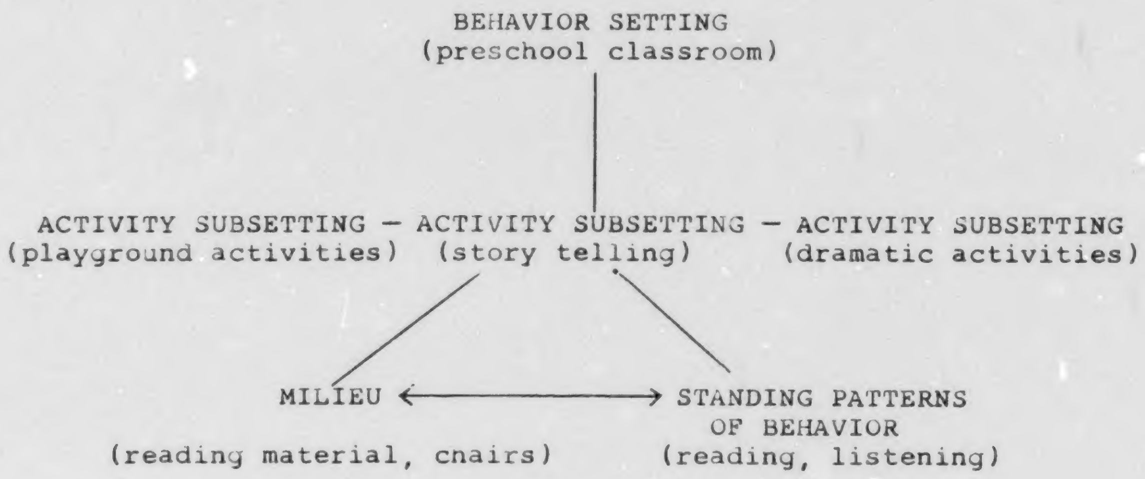
OBJECTIVES OF THE RESEARCH

This research has attempted to describe the behavior-milieu synomorphs which identify activities in preschool classrooms. It has examined the ways in which these activity patterns differ among six programs varying in curricular emphasis and child composition and how characteristics of classroom activities as well as traditionally studied personal characteristics of children (age, sex, and social class) shape interactions among teachers and children.

The social interaction variables selected for study were similar to those used in previous observational

FIGURE 1

Theoretical Model


BEHAVIOR SETTING
(preschool classroom)
ACTIVITY SUBSETTING
(playground activities)
ACTIVITY SUBSETTING
(story telling)
ACTIVITY SUBSETTING
(dramatic activities)
MILIEU
(reading material, chairs)
STANDING PATTERNS OF BEHAVIOR
(reading, listening)

research in preschool classrooms. Like the Conners and Eisenberg (1966), Reichenberg-Hackett (1962) and Prescott and Jones (1967) research, this study includes a categorization of the values or goals implicit in teachers' communications to children. These include both teacher inputs reflecting curricular goals (i.e., cognitive, social or physical emphasis of the communication) as well as inputs having classroom management aims. In addition, the goals implicit in communication from children to teachers and from children to other children (for example seeking objects, information, or activity with another individual, or protecting one's own activity) were also studied as they vary with environmental circumstance.

In studies of interpersonal communication, it is just as important to realize how things have been said as what has been said. In this study, the how of communications among teachers and children was examined in terms of their coercive quality, or the pressure exerted by one individual on another in order to influence his behavior. Many studies of classroom interaction have included variables similar to this one, ranging from several recent investigations (e.g., Katz, 1968; Miller, et. al., 1969, 1970; Soar, 1970; Spaulding, 1967; Stern, 1967;) summarized in the Related Research section of this report to the classic studies of Anderson and Brewer (1945), Flanders (1960), and Withall (1949) which examined direct versus indirect social influences of teachers to children. Unlike much previous research, this study does not make the evaluative assumption that a teacher who uses techniques which are noncoercive or indirect in influence is necessarily a better teacher than the teacher who uses very directive techniques. Instead, it asks the question of to what extent behavior, flexible or not, is dependent upon requirements of the situation. Do teachers feel impelled to keep order, maintain quiet, and be on guard against interruptions because of their perceptions of the requirements of the ongoing activities in the classroom?

This study also examined the results which influence attempts led to in the classroom. The basic ecological question of interest here concerned the identification of activity circumstances in which teachers and children satisfy rather than interfere with one another's desires. In order to explore this question, responses of teachers and children were classified as either congruent or noncongruent with the implicit end goal of communications directed toward them.

In studying the relationship of responses to activity setting characteristics, this investigation took a position similar to the point of view expressed toward influence attempts above. Personality tendencies may not fully explain children's compliant or disruptive behavior in the classroom, and environmental factors may play an important part in encouraging cooperative interpersonal relations among teachers and children. This position is supported by previous research (Berk, 1971; Berk, 1973) which indicates that responses of children to conflict experiences in the classroom depend on the kind of situation the child encounters rather than on his personality tendencies.

To answer the above questions, an additional objective arose which involved the recording an analyses of activity settings and teacher and child behavior in sufficient detail so that measurements derived from these sources could be related to one another. The specimen record approach to naturalistic observation and protocol unitization procedures drawn from ecological psychology were employed.

Finally, the activity setting descriptions of the six preschool environments participating in this study were used for purposes of program evaluation. In this investigation, no apriori decisions were made about what constitutes a good or bad program in terms of constellations of activities. Instead, program evaluation was carried out from the point of view of how well teachers actually accomplished their program objectives. Activity occurrences in the classroom were matched against interview material which revealed teachers' views of the kinds of activities they would ideally like to see happen in their classroom. To what extent do teachers, the activity architects of the preschool setting, accomplish their goals in terms of classroom practices?

SUMMARY

In summary, specific objectives of the research included:

(1) Development of descriptive measures of activities in preschool environments and a method of unitizing preschool activities from naturalistic description.

(2) Development of a comprehensive system for describing social interaction in the classroom which involved not only communications from teacher to child, but also communications from child to teacher and child to child. These interactions were described according to (a) the implicit goal of the agent of the social contact; (b) the coerciveness of the method of influence used by the agent; and (c) the congruence or noncongruence of the target individuals response with the implicit end goal of the agent's communication.

(3) Study of the relationship of social interaction to activity setting characteristics in six preschool settings differing in curricular emphasis and child composition.

(4) Study of the relationship of activity setting participation and social interaction variables to personal characteristics of the child.

(5) Evaluation of preschool programs by examining, through teacher interviews, the extent to which teacher goals with respect to activities match the actual classroom occurrence of these activities as seen by neutral observers.

METHOD

THE SETTINGS

Six preschool settings participated in the study. They were selected to represent variety in curricular approach and social class composition of children. The preschools are described below in terms of their facilities, child composition, and daily programs.

The Franchise Day Care Center

This day care center was one of many of its kind in the Midwestern United States. It was franchised by a company which erects a building of standard plan and furnishes it with all the equipment and materials necessary for operating a day care center.

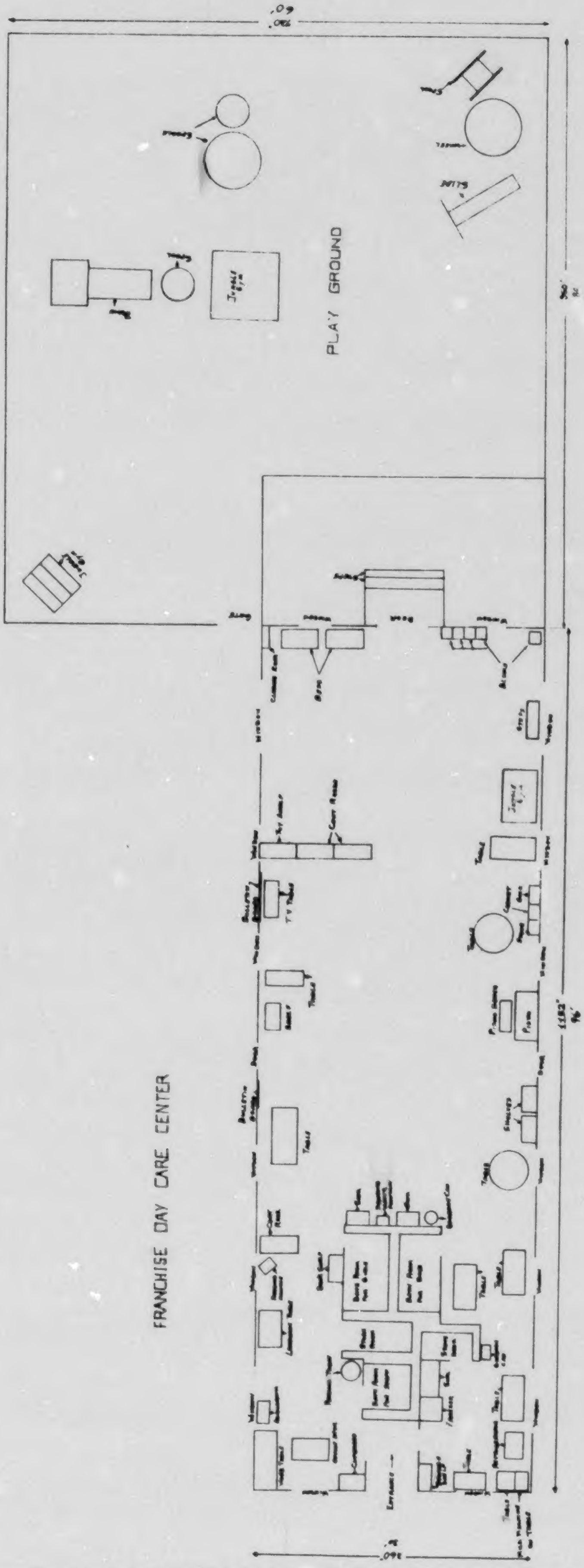
Mrs. F., owner and director of the center, planned admission of children to the program so that there were as many as sixty to seventy-five children present at one time. They ranged in age from two to six years. All of the children were middle class, having fathers or mothers with professional-managerial positions. Children attended this center for one of three reasons: 1) the mother was employed; 2) the mother wished time away from her child to participate in various voluntary activities or to shop and run errands; and 3) parents desired a preschool experience for their child. Though parents could bring and pick up their children at any time during the day, most children remained at the center for either the entire morning, the entire afternoon, or for a full day. For an additional fee, the center provided prepared, frozen hot lunches which teachers heated in a microwave oven for children who remained over the lunch hour.

The day care facility consisted of a large, undivided oblong room (see figure 2). There was an adequately large playground in back of the building with a few pieces of outdoor play equipment.

Six teachers were employed to work with the children. All of them had some training in early childhood or primary education. On days when there were very large numbers of children, the director assisted the teachers in working with the children. The center seemed sparsely equipped with play materials for all the children present at one time to engage in self-selected, individualized activities. Much of the time, activities were preplanned and organized by the teachers.

BEST COPY AVAILABLE

FRANCHISE DAY CARE CENTER


PLAY GROUND
Jungle Gym
Entrance

FRANCHISE DAY CARE CENTER

Figure 2

During the morning session when observations were made, a typical daily program consisted of an early period during which all children present watched television, followed by a flag salute and lesson on the date, day of the week, and weather. Then the children went to various tables for snacks, following which they met in front of the piano where they were separated into groups on an age basis. Typical group activities for the three- and four-year-olds observed in this study consisted of reading readiness experiences, structured art activities, having a story read to them, and organized group games. Following group activities, the children were given opportunities for free play and were encouraged to go outside. The morning concluded with lunch being served for those children who would remain into the afternoon. Others were picked up by their parents.

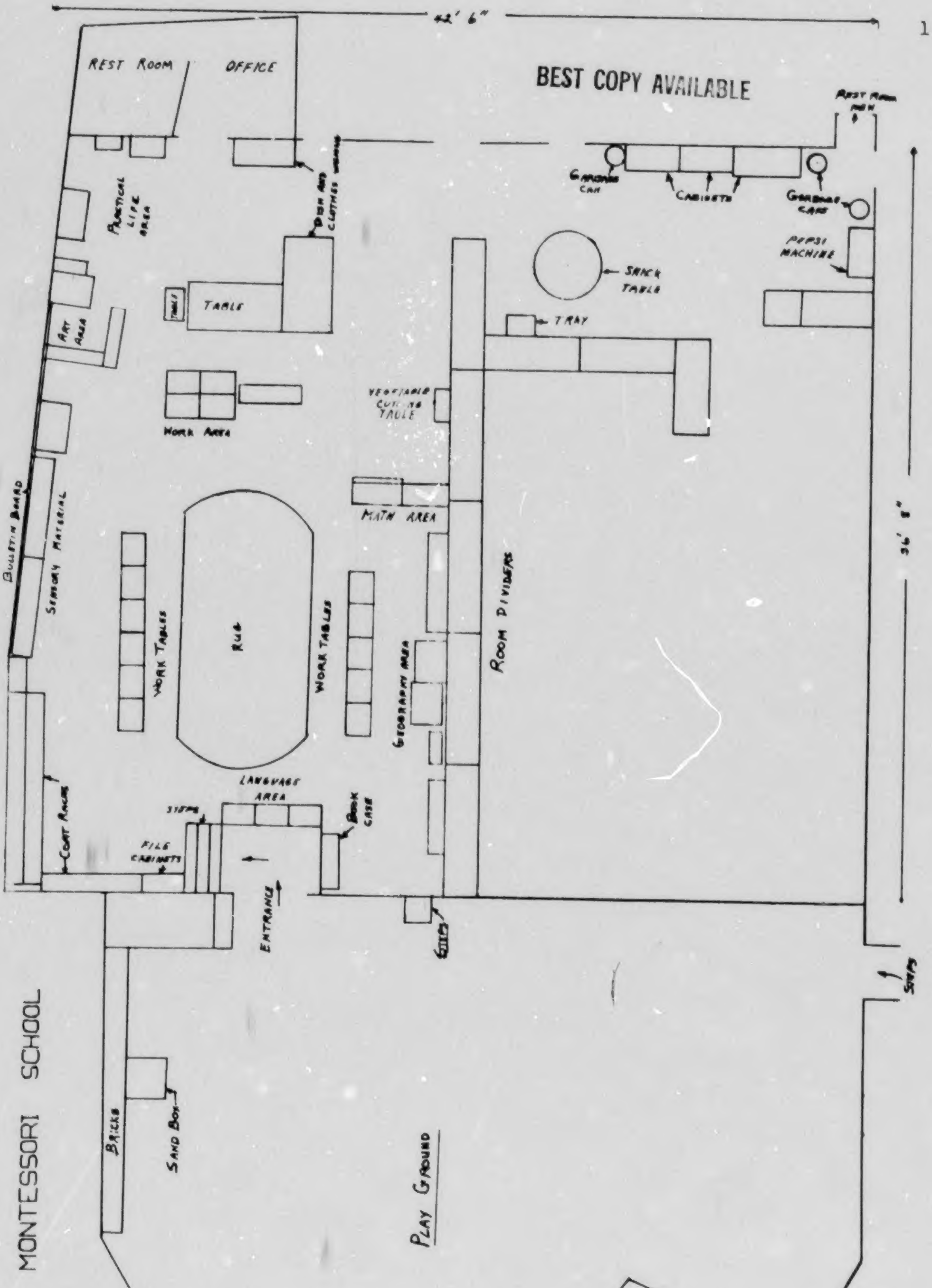
The curriculum of the Franchise Day Care Center emphasized planned activities for preschool children designed to prepare them for experiences they would encounter in kindergarten and elementary school. On several visits to the center, the director showed the principal investigator new materials which had just arrived from the Franchise Company. They included such items as picture vocabulary cards, letter recognition cards, and simple reading materials. Shortly after the observations in this center were completed, a reading machine was delivered and integrated into the preschool curriculum. Many of these same materials were used in a remedial tutoring program offered by the center to poorly achieving elementary school children after school.

The Montessori Nursery School

This setting was a nonprofit nursery school which occupied part of a church basement. It was governed by a board consisting of parents of children who attended the school and other community members interested in the Montessori approach to early education. There were two half-day sessions for the children.

Mrs. M., a certified Montessori teacher, taught the morning session along with a student teacher who was practice teaching at the school in order to meet requirements for a Montessori teaching certificate. Twenty-three middle class children were enrolled in this classroom. Most of them were three and four years of age.

The facility consisted of a relatively small oblong shaped area separated from the rest of the basement by temporary room dividers (see figure 3). It was abundantly equipped with typical Montessori materials. In addition, there were also materials not usually found in Montessori


42' 6"
REST ROOM
OFFICE
REST ROOM MEN
GARBAGE CAN
CABINETS
GARBAGE CANS
DISH AND CLOTHES WASHING
PRACTICAL LIFE AREA
SNACK TABLE
PEPSI MACHINE
TABLE
TABLE
ART AREA
TRAY
VEGETABLE CUTTING TABLE
WORK AREA
MATH AREA
BULLETIN BOARD
SENSORY MATERIAL
WORK TABLES
RUG
WORK TABLES
GEOGRAPHY AREA
ROOM DIVIDERS
36' 8"
LANGUAGE AREA
STEPS
BOOK CASE
COAT RACKS
FILE CABINETS
ENTRANCE
STEPS
STEPS
BRICKS
SAND BOX
PLAY GROUND
CLIMBING BAR

MONTESSORI SCHOOL

Figure 3

environments. For example, two guinea pig cages provided children with animal care experiences, and an easel and art area encouraged children to draw and paint freely. Outside was a very sparsely equipped small playground. Children seldom used it, and outdoor activities did not seem to be an important part of this program.

In accordance with the Montessori philosophy, a typical daily program in this nursery school consisted primarily of independent self-selected activities by children with the teacher moving from one child or group of children to another, assisting as she saw a need to do so. Mid-morning, the class formed two large groups. While one group had snacks and a story read to them, the second one engaged in such activities as organized group games and music. Then all of the children met together on the rug to dress and go home.

Head Start Program

This program occupied a large classroom in an elementary school. Mrs. H., teacher of the Head Start class, was a certified elementary school teacher who, having previously taught first and second grade, was teaching preschool children for the first time. One teacher-aide assisted her in the classroom. The children enrolled were all lower class, having fathers or mothers holding semi-skilled or unskilled jobs or unemployed. Most of them were four years old.

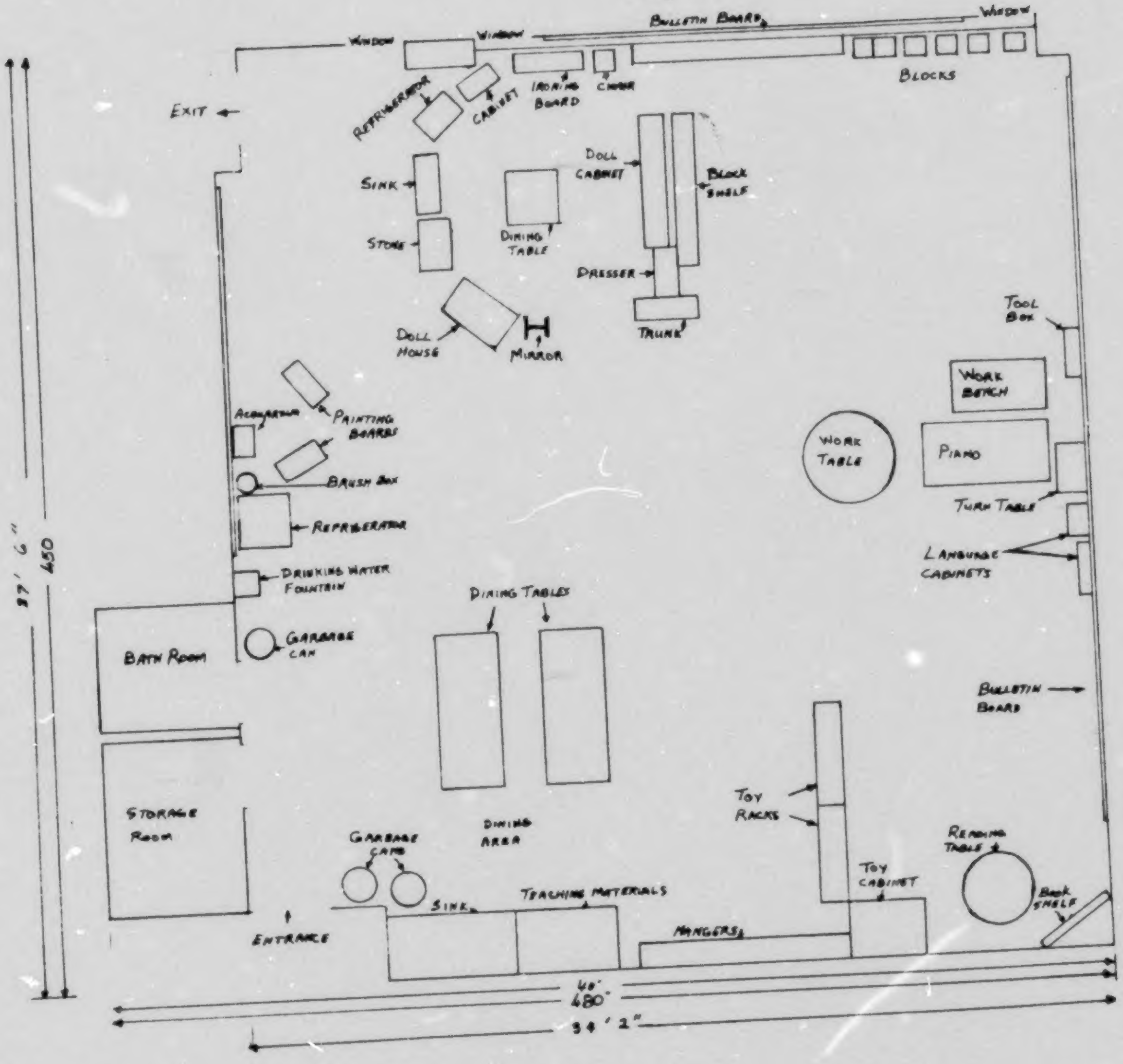
The classroom was a square-shaped room adequately equipped with standard nursery school materials (see figure 4). An unequipped paved yard was located just outside the classroom. During the time observations were made in this setting, children used it very infrequently for playing ball or riding tricycles.

A typical day at Head Start began with a short free-play period followed by teacher-structured activities having a strong cognitive orientation (e.g., number, shape and letter recognition, identifying parts of the body). At mid-morning, the children were led to the washrooms and then returned for snacks. Then they engaged in free play or teacher-structured, organized group activities. The morning ended with a hot lunch brought into the classroom from the school cafeteria after which the children dressed to go home.

The Community Day Care Center

This day care center was a nonprofit operation supported largely by funds from the community chest. Mrs. C,

Figure 4


WINDOW
WINDOW
BULLETIN BOARD
WINDOW
BLOCKS
EXIT
REFRIGERATOR
CABINET
IRONING BOARD
CHAIR
DOLL CABINET
BLOCK SHELF
SINK
STOVE
DINING TABLE
DRESSER
TRUNK
DOLL HOUSE
MIRROR
TOOL BOX
WORK BENCH
PIANO
WORK TABLE
TURN TABLE
LANGUAGE CABINETS
AQUARIUM
PAINTING BOARDS
BRUSH BOX
REFRIGERATOR
DRINKING WATER FOUNTAIN
GARBAGE CAN
BATH ROOM
DINING TABLES
BULLETIN BOARD
STORAGE ROOM
TOY RACKS
DINING AREA
GARBAGE CANS
SINK
TEACHING MATERIALS
TOY CABINET
READING TABLE
BOOK SHELF
HANGERS
ENTRANCE
37' 6"
450
40'
480"
34' 2"

HEAD START

director, was a college graduate and had been with the day care center for many years. Four teachers worked with the children under Mrs. C's direction at the time the observations were made. Aside from on-the-job instruction provided by the center director, none of the teachers had special training in teaching young children. Only one of the teachers was a college graduate.

Preschool as well as grade school children arrived at this center early in the morning when parents went to work. When grade school children left the center for public school, about thirty two- to five-year-olds remained for the morning program. After school, the older children returned to the center and remained there until parents picked them up. The preschool children who were observed in this center were lower class, many from father-absent homes.

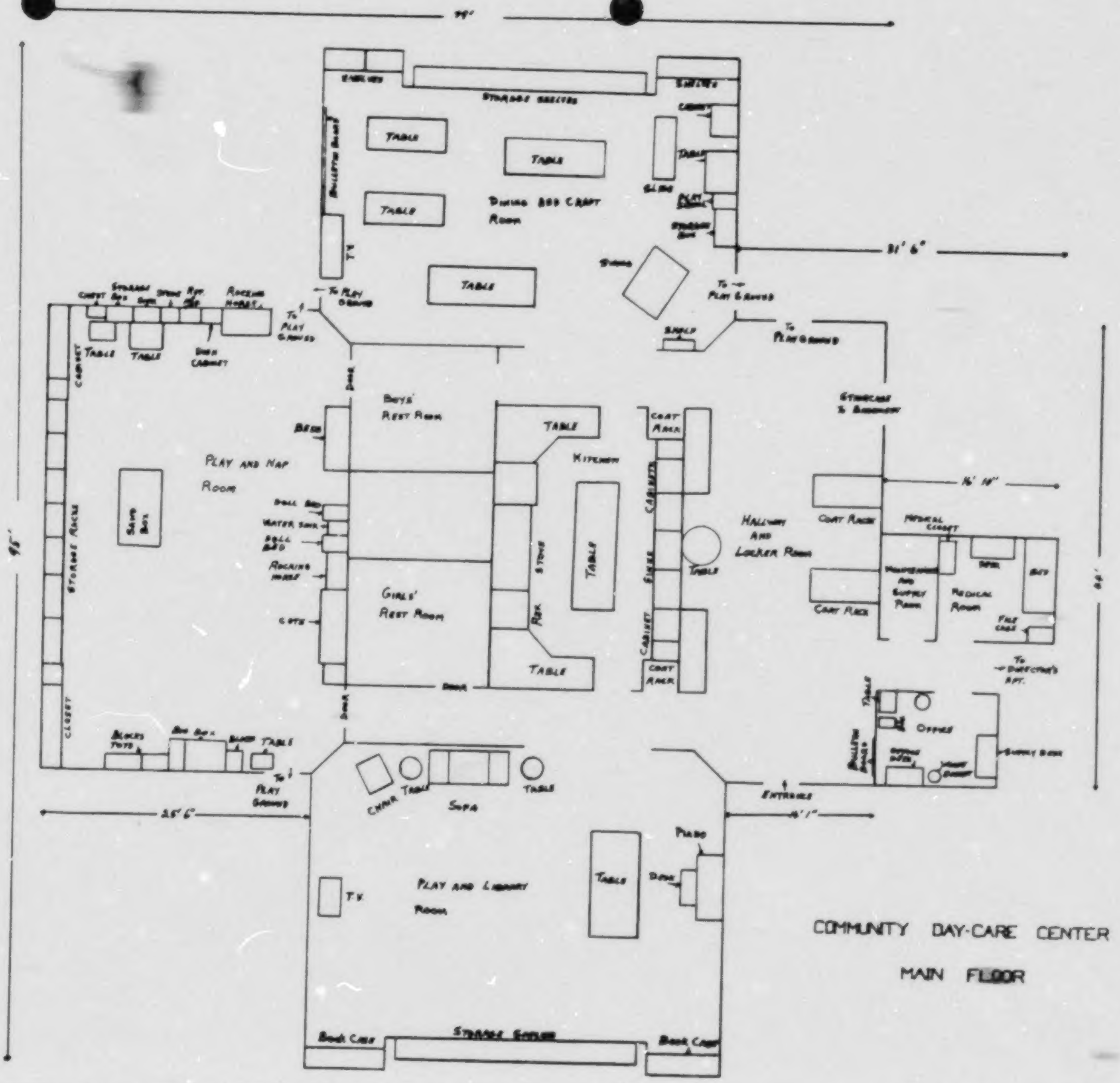
The day care facility was a spacious modern building with three main bright and airy rooms with large windows which surrounded a central kitchen (see figure 5). The center was abundantly equipped with materials and toys for both preschool and older children. Downstairs was a large gym room where children could engage in active play when the weather did not permit them to go outside (see figure 6). A large yard surrounded the building on three sides and was amply furnished with outdoor play equipment (see figure 7).

After the older children left for school, the daily program for the preschoolers began with the children seated quietly, watching television in the library, while teachers had coffee or chatted in the back of the room. Then each teacher took a group of children and engaged them in activities which she had planned for her group. These activities were typically ones that the teacher had identified as being fun for her children, such as arts and crafts projects, active play in the gym room, and organized group games. Following group activities, the children were given time for free play. Then they were led to the washrooms to prepare for lunch, following which most of the children went to the library room to look at books or to have a story read to them. During this time, a few other children helped the dietician set tables for lunch and serve the meals. Then all of the children were called to the tables. After lunch, they toileted and went to the nap room to rest.

Laboratory Nursery School Classroom Number I

This setting was one of two prekindergarten classrooms located in a University Laboratory School. The

Figure 5


COMMUNITY DAY-CARE CENTER
MAIN FLOOR
99'
95'
31' 6"
16' 10"
44'
25' 6"
16' 1"
Dining and Craft Room
Table
Table
Table
Table
Table
Shelves
Storage Shelves
Shelves
Cabinet
Table
Slide
Storage Box
Bulletin Board
T.V.
Stand
To Play Ground
To Play Ground
Shelf
To Playground
Staircase to Basement
Boys' Rest Room
Girls' Rest Room
Door
Door
Door
Door
Kitchen
Table
Table
Table
Table
Stove
Rek.
Cabinets
Sinks
Cabinet
Coat Rack
Coat Rack
Hallway and Locker Room
Table
Coat Rack
Coat Rack
Medical Closet
Housekeeping and Supply Room
Medical Room
Sink
Bed
File Case
To Director's Apt.
Office
Table
Bulletin Board
Supply Desk
Entrance
Play and Nap Room
Sand Box
Storage Racks
Cabinet
Closet
Chest Box
Storage Box
Table
Table
Dish Cabinet
Rocking Horse
To Play Ground
Beds
Doll Bed
Water Sink
Doll Bed
Rocking Horse
Cots
Blocks Toys
Table
To Play Ground
Chair
Table
Sofa
Table
Play and Library Room
T.V.
Table
Piano
Desk
Book Case
Storage Shelves
Book Case

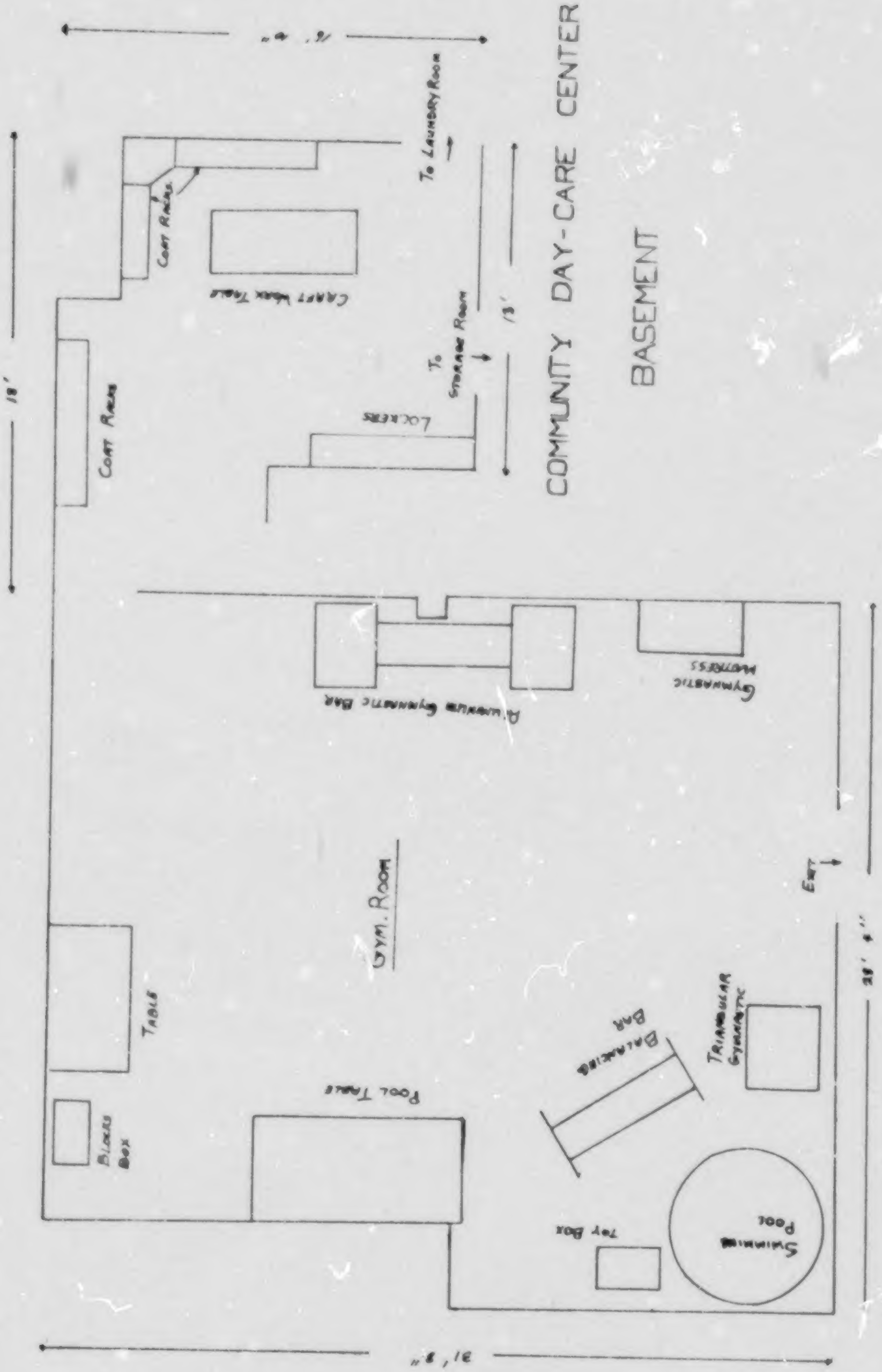
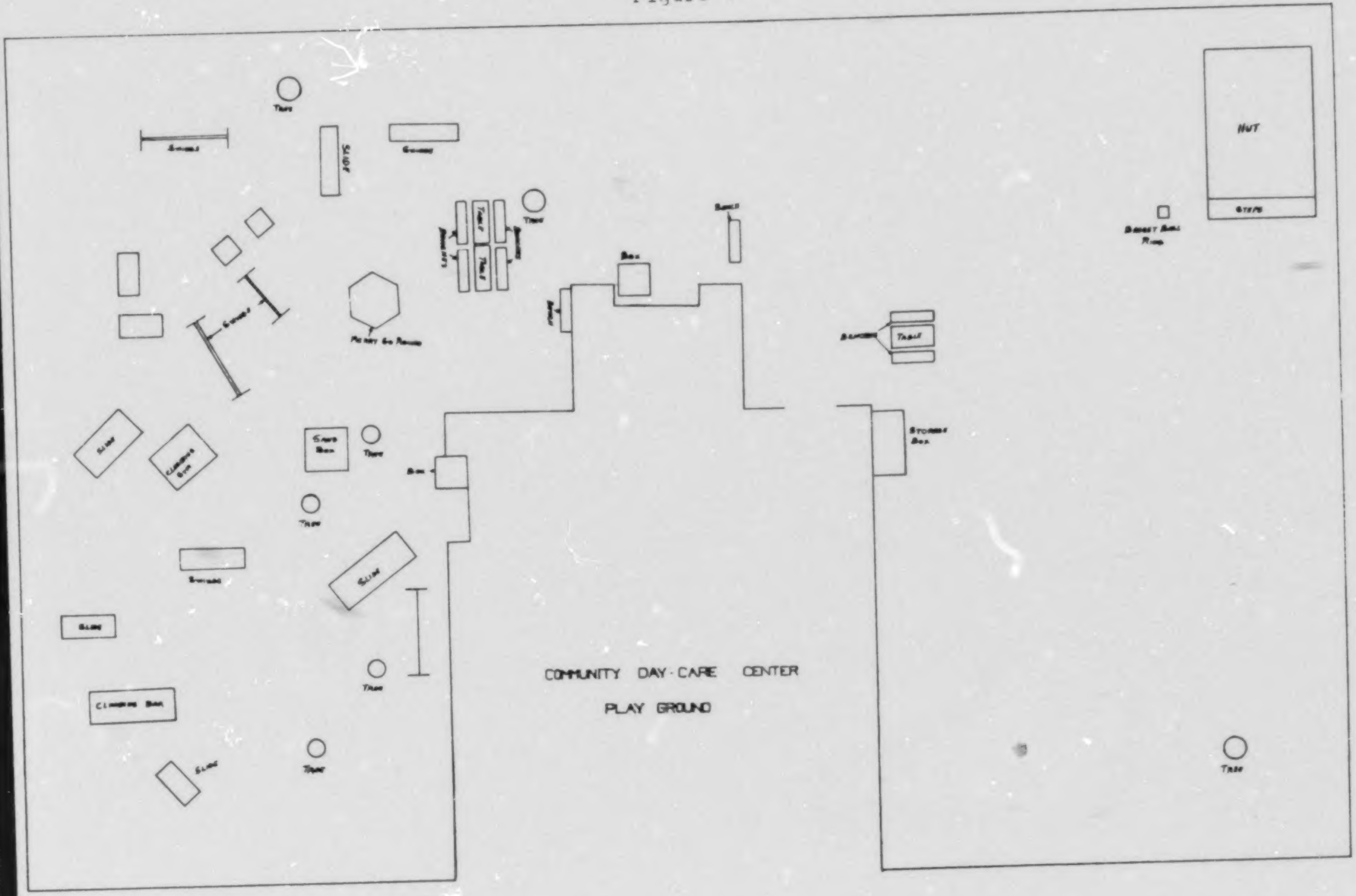

COMMUNITY DAY-CARE CENTER
BASEMENT
GYM. ROOM
16' 4"
18'
13'
31' 8"
28' 4"
To Laundry Room
To Storage Room
Coat Racks
Coat Racks
Craft Work Table
Lockers
Aluminum Gymnastic Bar
Gymnastic Mattress
Exit
Table
Blocks Box
Pool Table
Balancing Bar
Triangular Gymnastic
Swimming Pool
Toy Box

Figure 6

Figure 7


COMMUNITY DAY-CARE CENTER
PLAY GROUND
Hut
Steps
Basket Ball Ring
Tree
Swings
Slide
Swings
Tree
Table
Table
Benches
Benches
Box
Bench
Bench
Merry Go Round
Swings
Benches
Table
Storage Box
Slide
Climbing Gym
Sand Box
Tree
Box
Tree
Swings
Slide
Slide
Tree
Climbing Box
Slide
Tree
Tree

teacher, Mrs. A., was a certified elementary school teacher and had been teaching preschool and kindergarten children at the school for five years.

The classroom was a spacious room abundantly equipped with standard nursery school materials (see figure 8). The children used a playground which they reached by going down a long hallway to the back of the school. The playground was a large area with a few pieces of climbing equipment, swings, and sandboxes. There were paths surrounding the main play areas on which children could ride tricycles (see figure 9).

The prekindergarten through third grade classrooms in the Laboratory School were under the jurisdiction of a new director of early childhood education who had come to the University the previous year. She initiated the admission of disadvantaged children to the regular Laboratory School program. Previously, they had attended a special program located in an adjacent special education building. She also extended the prekindergarten classrooms downward to include three-year-olds. Therefore, Laboratory Nursery School Classroom I was comprised of seventeen three-, four-, and five-year-old children, some of whom were lower class and some of whom were middle class. In addition, two special education children were assigned to this classroom.

The new director also stressed the "open classroom" as a curricular approach to teaching young children. Mrs. A, who had begun her career as a kindergarten teacher with a teacher-structured approach, was attempting to move toward a classroom organized on the basis of the open classroom philosophy. A typical morning began with children selecting from the variety of activities available in the classroom. While some children played with blocks, climbed on the indoor jungle gym, or pushed large indoor riding toys, others painted, worked puzzles, played in the housekeeping area, looked at books or manipulated cuesenaire rods. Mrs. A. moved from one activity area to another, helping or joining in, as she felt a need to do so. At midmorning, the children cleaned up, and Mrs. A. gathered all of them together on the rug. Led by the teacher, the group engaged in singing, listening to a story, or discussing the activities of the day. Then Mrs. A. appointed several children to prepare the tables for a snack. After the snack, the children again engaged in self-selected activities or went outside until it was time to go home.

Laboratory Nursery School Classroom Number 2

This setting was part of the same school and under the jurisdiction of the same director as Laboratory Nursery School Number 1 and was located right next door to it. The teacher,

Figure 8

LABORATORY NURSERY SCHOOL

CLASS ROOM NO. 1

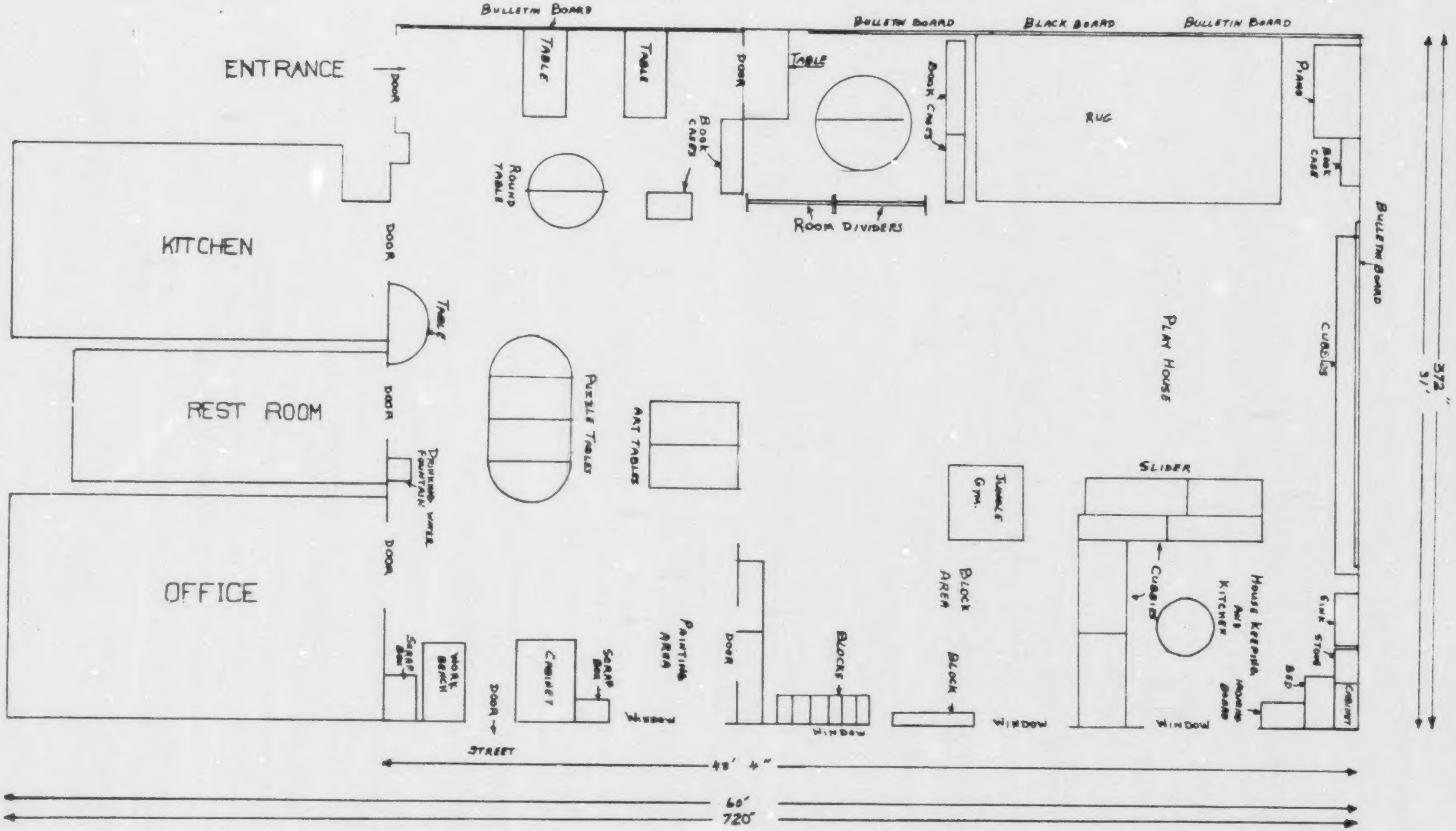
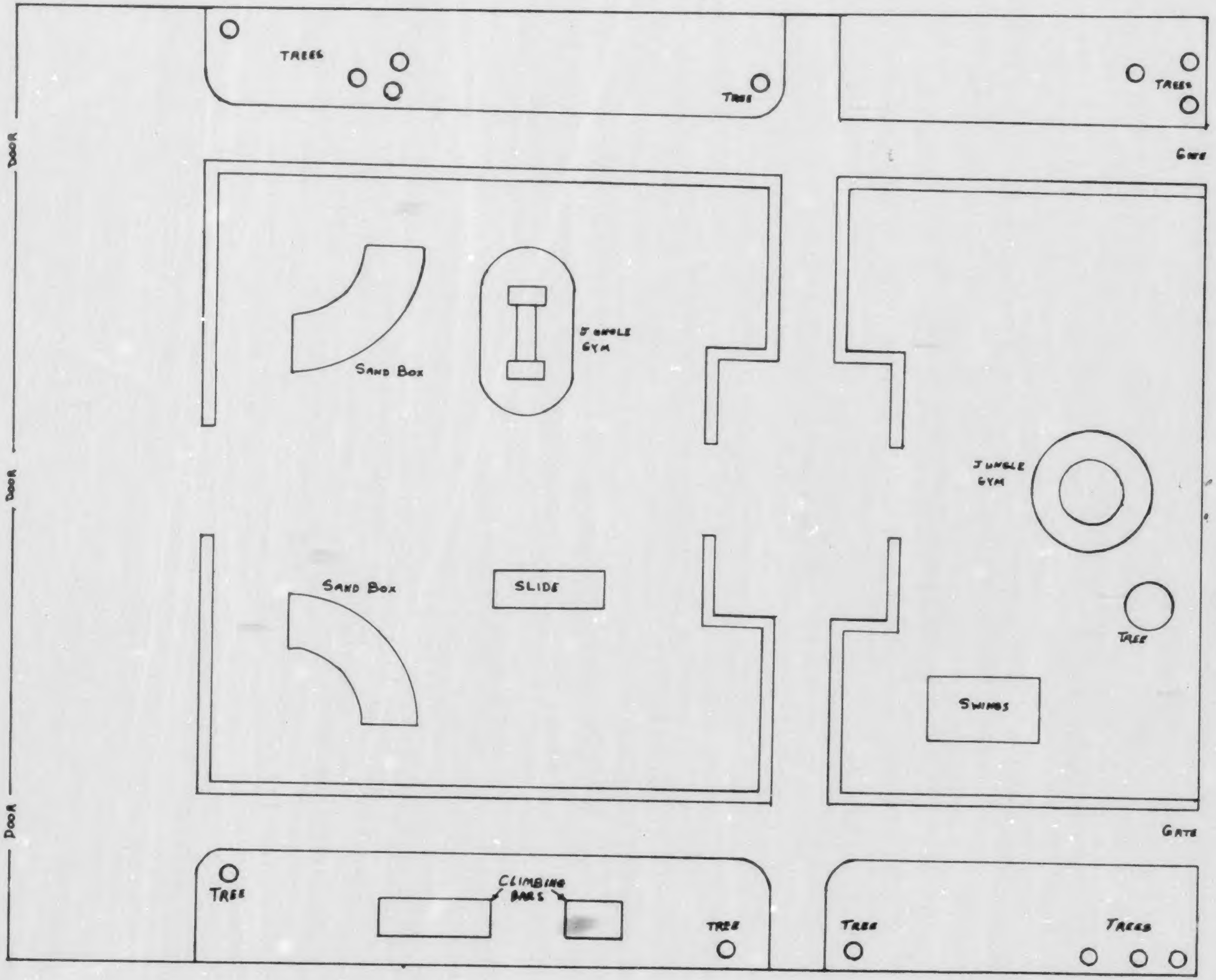

BULLETIN BOARD
BULLETIN BOARD
BLACK BOARD
BULLETIN BOARD
ENTRANCE
DOOR
TABLE
TABLE
DOOR
TABLE
BOOK CASES
BOOK CASES
RUG
PIANO
BOOK CASE
ROUND TABLE
ROOM DIVIDERS
BULLETIN BOARD
KITCHEN
DOOR
TABLE
CUBBIES
PLAY HOUSE
372"
31'
REST ROOM
DOOR
PUZZLE TABLES
ART TABLES
DRINKING WATER FOUNTAIN
SLIDER
JUNGLE GYM.
OFFICE
DOOR
BLOCK AREA
CUBBIES
HOUSE KEEPING AND KITCHEN
SINK
STOVE
BED
IRONING BOARD
CABINET
SCRAP BOX
WORK BENCH
DOOR
CABINET
SCRAP BOX
WINDOW
PAINTING AREA
DOOR
BLOCKS
WINDOW
BLOCK
WINDOW
WINDOW
STREET
48' 4"
60'
720"

Figure [illegible]


DOOR
DOOR
DOOR
TREES
TREE
TREES
GATE
SAND BOX
JUNGLE GYM
SAND BOX
SLIDE
JUNGLE GYM
TREE
SWINGS
GATE
TREE
CLIMBING BARS
TREE
TREE
TREES

LABORATORY
NURSERY SCHOOL
PLAY GROUND

Mrs. B., certified at the primary level, had been an assistant teacher in the University's program for disadvantaged preschool children before she was given her own prekindergarten class in the Laboratory School. Her children were also a socio-economic mix of fifteen three-, four-, and five-year-olds. One special education child was also a part of this classroom.

Like Laboratory Nursery School Classroom 1, Classroom 2 was a spacious room abundantly equipped with preschool materials (see figure 10). Mrs. B. used the same playground down the hall from the classroom as Mrs. A.

A typical morning in this classroom followed much the same overall plan as that of Classroom Number 1. The children engaged in a variety of self-selected activities until midmorning, when they cleaned up the room and gathered together on the rug for a story, music, or an organized group game. Then the children went to the tables for a snack served by the teacher. Depending upon Mrs. B's plan, following the snack they sometimes again selected their own activities, went outside, had a rest period, or met on the rug for activities organized by the teacher before going home.

SAMPLE

Characteristics of the children who participated in the study, in terms of setting attended, age, sex, race, and social class, are presented in table 1. All of the children who attended the Montessori Nursery School, Head Start, and Laboratory Nursery School Classrooms No. 1 and No. 2 were observed. Since as many as sixty to seventy-five children were present in the Franchise Day Care Center and about thirty in the Community Day Care Center at one time, three-, four-, and five-year-olds who came to these settings for five full mornings a week were selected for observation, since their time of attendance was comparable to that of children in the other preschools.

One hundred three children comprised the total sample. Of these, the great majority were three- and four-year-olds and Caucasian in race. About half of the children were boys and half were girls. Approximately forty per cent were of lower class origin, and sixty per cent of middle class origin (see table 1).

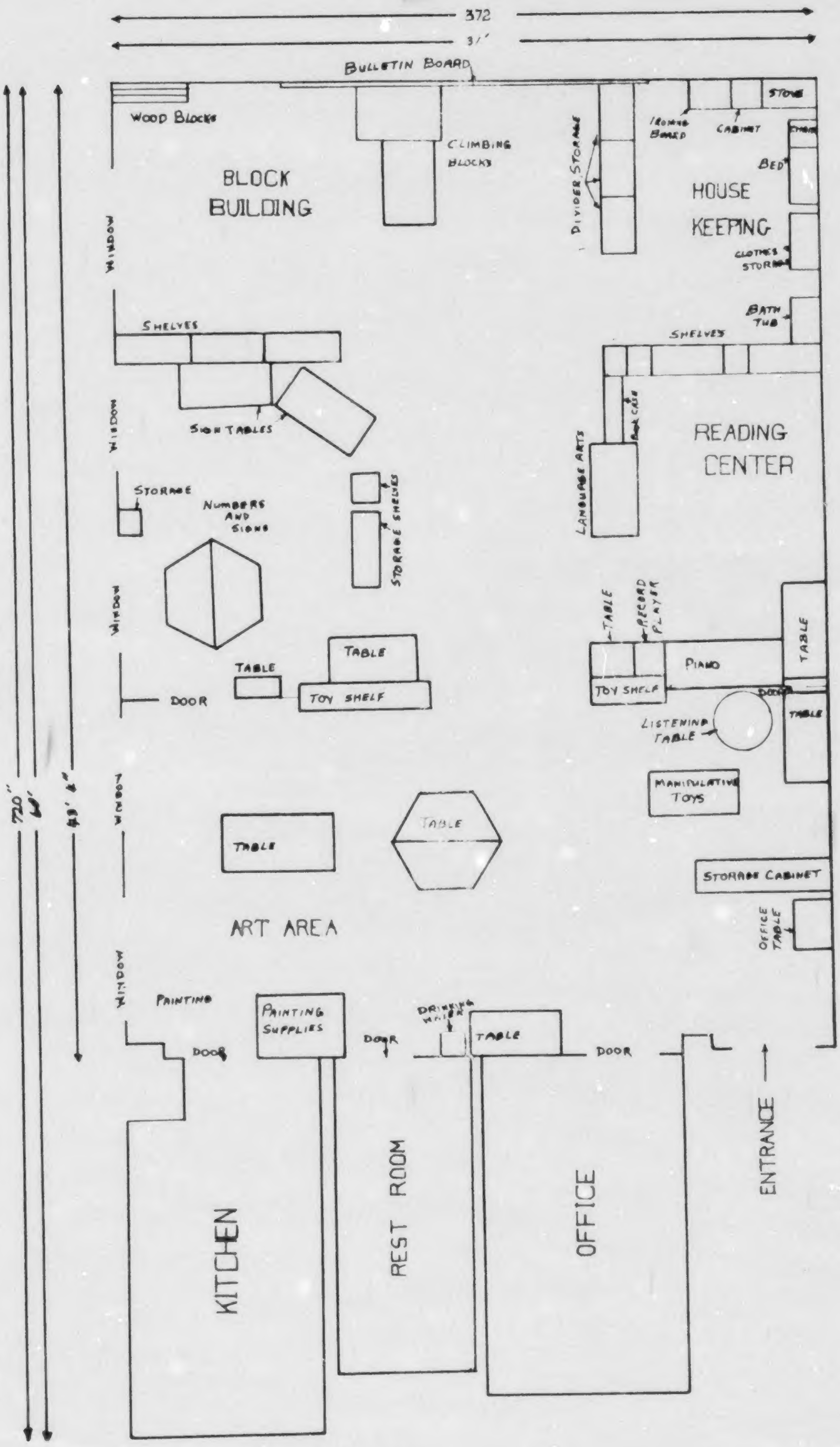

372
31'
BULLETIN BOARD
WOOD BLOCKS
BLOCK BUILDING
CLIMBING BLOCKS
DIVIDER STORAGE
IRONING BOARD
CABINET
STOVE
CHAIR
BED
HOUSE KEEPING
CLOTHES STORAGE
BATH TUB
SHELVES
WINDOW
SHELVES
SIGN TABLES
WINDOW
BOOK CASE
LANGUAGE ARTS
READING CENTER
STORAGE
NUMBERS AND SIGNS
STORAGE SHELVES
WINDOW
TABLE
RECORD PLAYER
TABLE
PIANO
TABLE
TABLE
TABLE
TOY SHELF
DOOR
TOY SHELF
DOOR
LISTENING TABLE
TABLE
MANIPULATIVE TOYS
WINDOW
TABLE
TABLE
STORAGE CABINET
ART AREA
OFFICE TABLE
WINDOW
PAINTING
PAINTING SUPPLIES
DRINKING WATER
TABLE
DOOR
DOOR
DOOR
ENTRANCE
KITCHEN
REST ROOM
OFFICE
720"
60'
49' 4"

Figure 10

LABORATORY NURSERY SCHOOL
CLASS ROOM NO. 2

Table 1

SAMPLE CHARACTERISTICS

Setting	Age N			Sex N		Race N			Social Class N		Total
	3	4	5	Boys	Girls	White	Black	Other	Lower	Middle	
Franchise Day Care Center	9	7	2	9	9	15	2	1	0	18	18
Montessori Nursery School	8	10	5	12	11	20	0	3	0	23	23
Head Start	1	12	1	7	7	13	1	0	14	0	14
Community Day Care Center	7	8	1	6	10	16	0	0	16	0	16
Laboratory Nursery School Classroom No. 1	7	8	2	8	9	12	4	1	7	10	17
Laboratory Nursery School Classroom No. 2	6	6	3	8	7	13	2	0	6	9	15
Total	38	51	14	50	53	89	9	5	43	60	103

PROCEDURE

Data were collected using the specimen record technique of making naturalistic observations described by Wright (1967). A specimen record is a detailed narrative account of behavior and its immediate environmental context as seen by trained observers. Since it describes the particulars of the stream of an individual's behavior and habitat, it seemed ideally suited to the study of classroom social behaviors and preschool activity context to which these behaviors are related.

Observer Training

Four observers were given a three-week training session by the principal investigator, who also served as an observer in the study (making five observers in all). They were taught to make specimen records by recording the child's ongoing stream of behavior and context into a tape recorder for ten-minute periods, noting the time with a stop watch approximately every minute. The observers were informed of the purposes of the study and familiarized with the classification system which would be used to analyze the records so that their descriptions of behavior and situation would facilitate coding of the observations.

Five simultaneous ten-minute specimen records were made by each of the observers with the principal investigator during the training period. The observer was considered to be trained and ready to collect data for the study when (1) there was perfect agreement between the observer and principal investigator in the description and coding of activities; (2) when the observer overlooked no more than ten per cent of the social events seen by the principal investigator; and (3) when there was at least eighty-five per cent agreement in the coding of social events.

Data Collection

The team of five observers collected data in one preschool setting at a time. Begun in late-October and completed in mid-February, data collection took approximately two to three weeks in each setting.

Observations in each of the settings were made in the morning. It was divided into three observation periods: early, middle and late. Each observation period lasted forty-five tc sixty minutes. Each observer observed four children for ten minutes each during an observation period. To avoid fatigue, observers took two- to three-minute breaks inbetween observations of individual children. The observations were continued until six ten-minute specimen records were collected for each individual child.

In order to control for the effects of observer bias and to insure representativeness of classroom activities and children's behavior, observations were scheduled so that each observer observed every child; each child was observed twice during each of the three observation times, but no more than once a day; and each observer made observations at each of the three observation periods (a sample observation schedule is given in Appendix A).

Observers dictated on-the-spot descriptions of the children's behavior and activity context into a small cassette tape recorder. This method, with the microphone encased in a face mask, has been used and described by Schoggen (1964). In this study, the face mask was not used because it was found that by holding the microphone close to the lips and whispering into it, the observer's speech was almost inaudible to individuals in close proximity to him.

Immediately after observing, the observers listened to their tapes and wrote down any additions or corrections. They subsequently dictated these at the end of the recording. Then the tapes were transcribed by a typist and returned to the observers who, while following the transcription, listened to the tapes again and made any further changes which were necessary.

The Observational System

Activity Context. Even the casual observer of nursery school life may be aware of the constellations or patterns formed by the objects, individuals, and behaviors making up the activities which Barker describes in theoretical terms as behavior-milieu synomorphs. On a particular day, an observer who follows the course of Johnny's behavior may see him in several of these activity situations. First, he is seen with a group of children in the block corner, directing their own construction of high towers and sprawling fences. His second move is to join a group of children working at easels with the teacher nearby, preparing paint and hanging up finished paintings. Next, he goes off alone to work a puzzle at a table. Finally, he joins another child to hear a story being read by a teacher aide.

During the period described above, four distinct environmental contexts for Johnny's behavior are clearly noticeable. These organized activity patterns were called *activity units*. Activity units possess internal integrity and boundedness; that is, events within a unit are more related to one another than they are to events outside the unit, and for this reason they are readily identifiable by any knowledgeable observer.

In nursery school environments, activity units show tremendous variety, but several descriptive dimensions can be applied to all of them and can be employed to describe their internal unity. These dimensions were stimulated by and are similar to those used by Gump (1967,1969) in his study of activities in elementary school classrooms. They include: (1) utilization of resources; (2) child behavior; (3) group size; (4) coordination of children's actions; (5) teacher leadership pattern; and (6) activity initiation.

Every activity unit involves utilization of resources, which refers to the basic endeavor or purpose of the activity and the set of facilities through which this purpose is realized. The activity purposes of constructing a block structure, playing house or painting a picture all require certain tools and materials for sustaining them, such as blocks, dress-up clothing, paints, and paper. Therefore, block building, dramatic play, arts and crafts, music, and organized group activities are examples of resource utilization because they describe the combination of purpose and materials characteristic of activities in the preschool setting.

Activity units can also be characterized by the basic child behavior, or standing pattern of behavior encouraged by the activity. These child behaviors may be passive, as when children are required to listen as the teacher tells a story, or they may be active, as in manipulating, drawing, vocal and instrumental expression, or large muscle activity.

Activity units may be further described by the group size of child participants; for example, whether children engage in the activity as a total class group, as a small cluster, or a single child; the coordination of children's actions, or action relationships among children prescribed by the activity; the teacher leadership pattern; and who initiates the activity, teacher or child.

Activity unitization of the observations involved deciding where one unit left off and another began. When deciding upon a unit change, the major consideration was a change in the activity description which warranted a new code for utilization of resources and child behavior. This criterion was used to determine the beginning and end points of units because these two dimensions described the milieu and standing pattern of behavior aspects of the activity. Changes in group size of activity participants, coordination of children's actions, and teacher leadership pattern were indicative of resource and child behavior change, but they were not taken as absolutely determinative because activities still seemed to maintain their integrity even though several children moved in and out of them and children sometimes coordinated their actions and sometimes did not. Coding for these three dimensions was determined by reading through the narrative of an entire activity unit and deciding upon a code which described the way in which the majority of time was spent by teachers and children. The last dimension, activity initiation, was coded by examining the beginning of each activity unit. If the observer began to record in midst of an activity, at an opportune moment he asked the teacher who had initiated the activity, thereby making coding of this dimension possible.

The activity dimension categories are presented in Table 2 in summary form and are fully described below. A sample specimen record with coded activity units is presented in Appendix A.

A. Utilization of Resources. The basic endeavor or purpose of the activity. It refers to the major classes of facilities through which individual and group purposes are stimulated and satisfied.

1.	Book-Related Activities	The teacher reads, children listen, or children read, look at books.
2.	Block Building	Arranging, connecting, building with blocks, or such materials as tinker toys.
3.	Table Activities	Working with such materials as puzzles, lotto, color wheels, dominoes, and other sets of items typically used on a table top, on the floor, and often in sit-down fashion.
4.	Dramatic Activities	Playing house, store, cowboys and Indians, Batman, or other activities involving fantasy and role playing.
5.	Arts and Crafts	Using paper, clay, crayons, paints or any other materials typically employed for any making of pictures or objects.
6.	Organized Group Activities	Playing circle tag, Simon Says, musical chairs, or other similar games.

Table 2

THE CATEGORY SYSTEM

I. Activity Unit Dimensions

A. Utilization of resources
- 1. Book Related
- 2. Block building
- 3. Table Activities
- 4. Dramatic play
- 5. Arts and crafts
- 6. Organized group activities
- 7. Music
- 8. Animal and plant care
- 9. Playground activities
- 10. Media experiences
- 11. Bodily maintenance
  - a. Eating
  - b. Resting
  - c. Dressing
  - d. washing, toileting
- 12. Transition
- 13. Other

B. Child Behavior
- 1. Passive
  - a. Nonactive
  - b. Waiting
  - c. Watching, listening
- 2. Active
  - d. Readying
  - e. Wandering, exploring
  - f. Eating
  - g. Manipulating
  - h. Drawing, making
  - i. Vocal and instrumental expression
  - j. Performing, acting out
  - k. Large muscle activity
  - l. Other

C. Group Size
- 1. Total class group
- 2. Large cluster
- 3. Small cluster
- 4. Pair
- 5. Single child
- 6. Not clear

D. Coordination of children's actions
- 1. Coordinated/simultaneous
- 2. Coordinated/reciprocal
- 3. Not coordinated
- 4. Not clear

E. Teacher leadership pattern
- 1. Not in activity
- 2. Minimal leadership
  - a. Watcher, helper
  - b. Participator
- 3. Active leadership
- 4. Not clear

F. Activity initiation
- 1. Teacher-initiated
- 2. Child-initiated
- 3. Not clear

II. Association Unit Codes

A. Goal
- 1. Setting maintenance
  - a. Procedural-structuring
  - b. Choice of, invitation to activity
  - c. Deviance control
  - d. Core action
- 2. Direct action
  - a. Direct action--other orientation
    - (1) Cognitive
    - (2) Social
      - (a) Peer relations
      - (b) Affection, comfort
      - (c) Recognition
      - (d) Social knowledge
      - (e) Cultural habits
    - (3) Physical
  - b. Direct action-- self orientation
    - (1) Objects from
    - (2) Information from
    - (3) Assistance from
    - (4) Activity with
    - (5) Recognition from
    - (6) Permission from
    - (7) Affection, comfort from
    - (8) Activity or self-protection
    - (9) Aggress against
    - (10) Spontaneous expression
- 3. Other

B. Specificity
- 1. Single target
- 2. Multiple target
- 3. Not clear

Table 2

THE CATEGORY SYSTEM CONTINUED

III. Method Codes

- A. Coerciveness
  - 1. Noncoercive
    - a. Minimal action
    - b. Handling, holding, rocking
    - c. Helping, giving
    - d. Informing
    - e. Confirming
  - 2. Mildly coercive
    - f. Encouraging
    - g. Requesting, suggesting
    - h. Challenging
  - 3. Strongly coercive
    - i. Blocking
    - j. Demanding
    - k. Attacking
  - 4. Other
- B. Verbal or nonverbal
  - 1. Verbal
  - 2. Nonverbal
  - 3. Not clear

IV. Response Codes

- A. Response Congruence
  - 1. Congruent responses
    - a. Attending
    - b. Accepting, acknowledging
    - c. Complying correctly
    - d. Complying incorrectly
    - e. Informing
  - 2. Noncongruent responses
    - f. Withdrawing
    - g. Ignoring
    - h. Whining, crying
    - i. Delaying
    - j. Seeking assistance
    - k. Questioning
    - l. Explaining
    - m. Negating
    - n. Attacking
  - 3. Other responses
    - o. Not clear
    - p. New initiation
    - q. No response
- B. Verbal or nonverbal
  - 1. Verbal
  - 2. Nonverbal
  - 3. Not clear

7.	Music	Listening to, dancing or moving to, or making music.
8.	Animals and Plants	Watering or planting. Feeding, handling animals and cleaning cages.
9.	Playground Activities	Climbing the jungle gym, riding tricycles, swinging, sliding, ball-playing, and other activities generally occurring on the playground.
10.	Media Experiences	Watching movies, slides, television, or looking at photographs.
11.	Bodily Maintenance	Engaging in activities and routines which involve taking care of bodily needs. There are four subcategories:
	a. Eating	
	b. Resting	
	c. Dressing	Putting on and taking off of clothing. It is not coded as a separate unit from transition if the dressing is a fleeting putting on or taking off of a garment on the way to another activity.
	d. Washing, Toileting	
12.	Transition	Period during which the child leaves one activity and begins the next. May involve wandering, exploring, waiting, or such readying behaviors as setting up and cleaning up.
13.	Other	Fits none of the given categories.

B. Child Behavior. This dimension describes the activity unit's basic standing pattern of behavior requirements in terms of whether the activity role demanded of the child is passive or active. Under these two broad classes of child behavior are described several more specific categories of nursery school activity demands.

1. Passive

a.	Non-active	The child is quiescent. His activity demands are reduced to a minimum, as in resting.
b.	Waiting	The child waits for the beginning of an activity, does not do anything.
c.	Watching, Listening	The child attends, incorporates, or thinks about presented stimuli, but is not required to do anything.

2. Active

d.	Readying	The child prepares himself or materials for the beginning or ending of activities.
e.	Wandering, Exploring	The child wanders, roams, explores, moves about in search of activity.
f.	Eating	The child snacks, eats a meal, drinks a beverage.
g.	Manipulating	The child handles, uses, arranges, connects, or plays with small objects.
h.	Drawing, Making	The child transfoems materials to create products, such as drawings, paintings, or models.
i.	Vocal and Instrumental Expression	The child engages in singing, chanting, playing of instruments.
j.	Performing, Acting Out	The child impersonates, acts a part, poses as a character.
k.	Large Muscle Activity	The child exercises, plays active games, or dances.
l.	Other	Fits none of the given categories.

C. Group Size. Refers to the size of grouping arrangements in which children function. Coding is determined by considering how many other children share the same resource and child behavior with the observed child.

1. Total Class Group

2.	Large Cluster	Subdivision of pupils into cluster of six or more.
3.	Small Cluster	Subdivision of pupils into cluster of three to five.
4.	Pair	
5.	Single Child	
6.	Not Clear	

D. Coordination of Children's Actions. Refers to whether or not the activity requires that children's actions be interrelated and interdependent with one another.

1.	Coordinated/ Simultaneous	Children's actions are interdependent in a synchronous fashion. The activity demands that children's actions coincide, as in singing a song, running a race, playing Simon Says.
2.	Coordinated/ Reciprocal	Children's actions are coordinated in a complementary fashion. Children's actions alternate, are reciprocally related, as in playing a game of dominoes or in dramatic play involving corresponding roles.
3.	Not Coordinated	The activity does not demand interdependence of children's actions; e.g., children paint their own pictures, climb on the jungle gym, listen to a story.
4.	Not Clear	

E. Teacher Leadership Pattern. Describes the basic, ongoing pattern of the teacher's relationship to the activity. If several teachers are present in the activity, the code is for the teacher who is most salient in the activity. For example, if two teachers are in the activity, one participating, one directing, the teacher leadership pattern is activity director.

1.	Not in Activity	The teacher is not clearly and consistently attending to the activity; her attention is directed elsewhere.

2. *Minimal Leadership*
    a. *Watcher-helper* The teacher is clearly with the members of the activity, but is on the periphery of the action, watching over and helping.
    b. *Participator* The teacher is not leading the action, but is primarily a participator, performing the same actions as children along with them.
3. *Active Leadership* The teacher is an activity director and is the key to subsetting action. (e.g., teacher reads to children, leads an organized group activity, leads singing)
4. *Not Clear*

F. *Activity Initiation*. Describes who selects the activity.

1. *Teacher-initiated*
2. *Child-initiated*
3. *Not Clear*

Association Units. Social interaction was analyzed for the intentions, or goals, of actors in the preschool environment by employing a unit similar to Schoggen's (1963) environmental force unit (EFU). An EFU is an action by an environmental agent toward an observed child, directed toward a recognizable goal or end state, and of which the child is aware. EFU are units which can be readily coded for the end state, or goal, toward which they are directed.

The EFU unit was deficient for purposes of this study because it measures the force of environmental agent upon the observed child's behavior, but not the observed child's power to act on the environment. In other words, it conceives of the observed child as the recipient of goal-directed action from others and not as an agent who acts upon others in the environment to satisfy his own purposes. Since it was desirable in this study to consider the extent to which the observed child is not only recipient, but also agent of action in different activities and in different preschool settings, the EFU unit was modified for this purpose.

The new unit, called an association unit, is defined in the same way as the EFU, except that, unlike the EFU, the association unit conceives of the agent as the individual who first initiates a goal directed action toward another person in the environment and the target as the individual to whom the action is directed. This allows for coding of inputs of others to the observed child and of inputs of the observed child toward others.

Below are several examples of association units, with their goals, agents, and targets identified, unitized in a portion of a specimen record:

Goal, Agent, and Target	
	Anne is sitting at a table near the kitchen area with a group of five other children, coloring.
Anne to inform Susan to hurry	Anne says to Susan sitting next to her, "We'd better hurry," and scribbles rapidly on her piece of paper. Susan glances up at Anne, as if to listen to her, then goes back to her coloring, without hurrying herself.
	Anne puts her crayon back and gets another one from the box in the center of the table. Now three of the children move away from the table and gather, with other children in the classroom, around the phonograph. Anne is still coloring, with Susan beside her, and Rebecca is across the table.

	Don approaches and picks up some crayons lying at the opposite end of the table from Anne.
Anne to get crayons back from Don	Anne looks up. "We need those crayons," she says pleadingly to Don. "You just need the ones you have," replies Don, refusing to give them back.
	Anne turns and goes back to coloring. Don walks away with the crayons.
Teacher to get Anne and other children to join music activity	A teacher approaches the table and announces, "Children, put your crayons away. Music time." Anne looks at the teacher but does not respond. The teacher returns to the phonograph. Anne stands up and begins to mark her paper very rapidly, concentrating hard, and making rather deliberate marks. Then she looks up to where the other children are listening to music. She seems to be trying to decide whether to color or to join the music activity. She folds her papers together, leaves the table, and goes to the music circle.

Association units were coded for (1) the goal of the agent, or initiator, of the unit; and (2) specificity, or the extent to which they were directed at single or multiple target individuals, as described below. A sample specimen record with coded association units is presented in Appendix A.

A. Function, Goal

1. Setting Maintenance. AU directed at setting maintenance were primarily actions initiated by teachers. However, child-initiated AU could also be coded into the following categories in such instances as when, for example, a child attempted to get another child to conform to a classroom rule.

   a. Procedural Structuring. AU focusing upon organizing, setting up and terminating activities.

   Example: The teacher is gathering a group of children together for a small group activity. She has already asked four children to go to the rug and now walks over to Chris and Donna. The teacher says to Chris, "Chris, would you go over to the rug and sit by Kathy. I want you to play a game with us." She indicates that Donna will come with the next group. Chris gets up immediately, goes over to the rug and sits by Kathy.

   b. Choice of, Invitation to Activity. AU having the purpose of involving the target in an activity by presenting an alternative, or offering a choice.

   Example: Kathy seems to be wandering about the room aimlessly. Mrs. M. walks over to her and says, "Kathy, do you have anything to do? Would you like to take the puzzle to the rug?" Kathy mumbles "OK", takes the puzzle Mrs. M. is carrying, and goes over to the rug. She dumps the puzzle pieces out and begins putting them back together.

   c. Deviance Control. AU directed at controlling deviant behavior.

Example: Paul has been chasing Diane and is holding her forcefully around the neck. Mrs. A. Walks over and takes Paul away physically. She says to him, "We don't do that to our friends. You sit here." Paul sits obediently on the chair with a remorseful expression on his face.

d. Core Action. AU which are part of the standing behavior pattern of the activity. They are social acts which are intrinsic to the activity itself, such as the teacher reading to children or children role playing in dramatic activities, and those intrinsic to an organized group activity, like "Simon Says." Because they are intrinsic to the activity, they also serve the purpose of setting maintenance.

Example: Willie and Greg are playing traffic with railroad signs and a traffic light. Greg, who is playing "policeman" holds up a sign that says "slow" and demands of Willie, "Willie, slow down, slow down." Willie slows down and continues driving his truck.

Mrs. M. is reading a story to the children. Sheryl is sitting in front of her, listening attentively and looking at the pictures of the book Mrs. M. is holding.

2. Direct Action. This category refers to agent actions which are nonmaintenance inputs to the target. There are two broad classes of direct action described below: direct action--other orientation and direct action--self orientation. The two classes account for the primary difference in purpose of association units initiated by teachers and those initiated by children. Teacher's actions in the classroom are directed toward satisfying the needs of children, whereas children's actions are primarily directed toward obtaining satisfaction of their own needs. However, although teachers were never found to initiate self-oriented association units, children did initiate other-oriented association units, as when one child showed another child how to use an object or shared materials with him. Therefore, AU initiated by children could be classified into any of the following direct action goal categories, whereas AU initiated by teachers fell only into the eight other-oriented categories given below.

[illegible]. Direct Action--Other Orientation. The agent provides an input to the target individual with the aim of benefiting him in one of the following ways:

1. Cognitive. AU which are manifestly directed at encouraging cognitive behavior in the target. The agent may do so by giving cognitive information, encouraging such behaviors as naming, describing object properties, and manipulation of numbers, or calling attention to facts and information about the child's surroundings.

   Example: Mrs. M. says to Tina, "Do you know what day of the week it is? Tina answers, "Monday."

2. Social. AU falling under the broad class of having a primarily social aim are subdivided into five categories:

   a. Peer Relations. AU in which the agent encourages or manifests friendship, cooperative play, sharing, taking turns, or helping one another.

      Examples: The teacher asks George to help Susan button her smock. George begins to help Susan.

      Willie puts his arm around Jim and says, "Here, you can play with my truck today." Jim takes the truck, smiles, and pushes it across the floor.

   b. Affection, Comfort. AU in which the agent mothers, comforts, provides affection for the target.

      Example: The children are resting on the rug. Miss H. is sitting beside Chris, who is lying down, and is rubbing Chris' back.

   c. Recognition. AU in which the agent recognizes by means of praise, special acknowledgment, or special privilege the target individual or his accomplishments.

Example: Mrs. M. says to John, who has just finished a puzzle, "You sure put it together quickly. You're awfully good at puzzles." John grins at Mrs. M.

d. Social Knowledge. AU in which the agent either provides the target with or encourages the target to impart social knowledge about himself and his associates.

Example: The children are gathered around Mrs. N. on the rug. She says, "Kathy, I heard something's going to happen at your house today. Don't you have a new little sister?" Kathy says, "Yes, she's coming home.

e. Cultural Habits. AU in which the agent encourages awareness of and conformity to cultural customs such as grace before meals, bodily neatness, hygiene, toileting, washing, and eating habits.

Example: Kathy is eating her ice cream with a fork. Miss H. says to Kathy, "Kathy, why don't you eat your ice cream with a spoon?" Kathy says, "No."

3. Physical. AU aimed at development of physical coordination and at handling and using classroom or playground objects correctly, such as in cutting with scissors or throwing a ball. In addition, AU aimed at encouraging physical exercise, such as climbing and jumping.

Example: The teacher is playing the piano and each child has an instrument to play in time with the piano. Greg is beating cymbals, but having a difficult time because he is not holding them properly. The teacher leans over, adjusts Greg's cymbals, clangs them, and says gently, "Try it like this."

a. Direct Action--Self-orientation. The agent provides an input to the target individual with the aim of obtaining something for himself, satisfying a personal desire, in one of the following ways:

1. Objects From. The AU agent's primary intent is to obtain objects from the target.

   Example: Willie is playing with a truck. Paul runs over to him, grabs the truck and runs away. Willie looks surprised and doesn't resist.

2. Information From. The AU agent seeks to obtain information, knowledge from the target. In doing so the agent's manifest purpose is not to stimulate thought or encourage greater awareness on the part of the target, but to obtain information for his own use or interest, to find out something he does not already know.

   Example: Sheryl says to Miss H., "What have you got in your mouth?" Miss H. says, "Teeth." Sheryl says, "Let me see. Open your mouth."

3. Assistance From. The agent seeks help or aid from the target.

   Example: George is having difficulty zipping his jacket. He walks over to a teacher's aide, pulls on her arm and says (indicating his jacket), "I can't do it." She zips it for him.

4. Activity With. The agent seeks the target as an activity partner by such means as inviting the target to join in his activity or asking the target if he can join the target's activity.

   Example: Kathy is playing a picture game. An aide, who is sitting beside her, has been paying attention to Diane and not to Kathy. Kathy turns to the aide and says, "You've got to guess what's here," trying to get the aide to play a game with her. She turns one of the pictures and shows it to the aide. The aide doesn't respond.

5. Recognition From. AU in which the agent seeks recognition for himself or his accomplishments.

Example: Chris, who has been playing picture lotto with an aide, picks up her completed card and says to the aide, "I want to show Mrs. N.," smiling, apparently because she is proud of her filled card. The aide says to Chris, "She's on the phone. You'll have to wait a minute."

6. Permission From. The AU agent seeks permission from the target to begin or continue an activity or to go someplace.

   Example: John pulls on Mrs. M's sleeve and says, pointing to the shelves, "Can I play with those puzzles?" Mrs. M. says, "Sure."

7. Affection, Comfort From. The AU agent seeks affection or comfort from the target.

   Example: Kathy gets up, goes over to Mrs. M. and holds on to her knee. Mrs. M. puts her arm around Kathy.

8. Activity or Self-protection. AU in which the agent attempts to prevent encroachment of others into his activity area, prevent others from taking objects being used by him, or protect himself from blame, potential assaults and injuries by others.

   Example: Paul is putting pegs in a board. Diane comes over and grabs some pegs from the table in front of him. Paul runs after her yelling. "Give-'em back." He catches her and grabs her around the neck.

9. Aggress Against. AU in which the agent appears to have no other intention than that of contradicting, hurting, or belittling another individual.

   Example: Paul walks over to Tony who is sitting on the rug, waiting for Mrs. M. Paul says to Tony, "I'm going to beat you up." Tony pays no attention to him and doesn't respond.

10. Spontaneous Expression. The agent provides an input to the target which appears to serve no other function than the spontaneous expression of thoughts and feelings. It is usually about something the agent sees or is doing, but may be about something more remote than the immediate situation.

    Example: An aide who has a hoarse voice has been working with a group of children at a small table. Kathy walks over to her and says, "You're going to be like Mrs. A. in a minute." The aide says, "What's the matter with Mrs. A?" Kathy says, "She sounds like a horse." The aide looks at Kathy and smiles, as if amused by her response.

B. Specificity. The specificity of the Association Unit refers to how specific the agent is in his actions toward a target. Does the agent concern himself with only a single individual or with multiple individuals? Two distinctions are made:

1. Directed Toward Single Target.
2. Directed Toward Multiple Target.
3. Not Clear.

Methods. The techniques, or methods used by an agent of an association unit to coerce behavior on the part of a target were examined according procedures described by Schoggen (1963). Every distinctly different attempt on the part of the agent to influence the target's response was identified and coded. For example, in the following association unit, there are three distinct methods:

Method 1 Mrs. C. flashes the light in the room, signalling to the children that it is time to clean up, and announces loudly, "Children, put your things away now. It's time for lunch." Mark ignores Mrs. C. and continues to play with a little musical merry-go-round.

Method 2 Mrs. C. comes over and says firmly to Mark, "Everyone's waiting for you to help. Put that away so we can eat." Mark looks at the teacher and hesitates. He seems to still want to play with the merry-go-round.

Method 3 Mrs. C. demands impatiently, "Get going, Mark, I mean now." Mark starts to put the toy away.

In cases where the agent repeated the previous attempt to influence the target's behavior, only one method was coded. For example, if the teacher said repeatedly, "What's this," referring to an apple, banana, pear, etc., only one method was identified. However, if she said, "What's this," does not get a response from the child, and then encourages, "Come on, I know you remember this from yesterday," then two methods are designated.

Methods were coded in two ways: (1) for coerciveness, or how forcefully the agent sought to bring about change in the behavior of the target; and (2) for whether the method had a verbal component to it or was entirely nonverbal, as follows:

A. Coerciveness

1. Non-coercive.

a. Minimal Action. The agent smiles, nods or shakes his head, or mildly gestures.

Example: The children are skipping around the room in time to a record. Diane skips behind a closet door, stops and watches the other children. The teacher smiles at Diane. Diane grins broadly and comes out from behind the closet.

b. Handling, Holding, Rocking. The agent holds, rocks, gently touches, snuggles against, feels or pats the target.

Example: John is sitting next to Mrs. M. on the rug. She puts her arm around him, giving him a hug.

c. Helping, Giving. The agent gives physical assistance or objects with the intention of helping the target.

Example: Kathy is having trouble carrying a plate of crackers. The aide walks over to her and says, "You take some and I'll take the plate." Kathy lets her help by taking the plate.

d. Informing. The agent instructs, describes, shows, demonstrates, makes something known, or asks rhetorical questions.

Example: The children are gathered together for music. They're sitting in a circle with Mrs. N. Mrs. N. says, "Today, we're going to sing the song about a bumble bee. Do you remember the song about the bumble bee? It goes like this," and she recites the song.

e. Confirming. The agent affirms the target's actions by saying, "good", "fine", "that's right", "thank you".

Example: Mrs. M. had asked Kathy to take the chairs down from the table. Kathy has just finished. Mrs. M. calls over to Kathy and says, "Good job."

2. Mildly Coercive

f. Encouraging. The agent gives praise or affirms the target individual's actions through such supportive statements as "I like what you do," "I think you're almost right." This category differs from (e) confirming in that the agent's influence is directed at encouraging the target to continue his efforts.

Example: John is sitting at a small table with three other children and an aide. The children are playing picture lotto. The aide has given John a picture to match. John is having a little trouble matching it. The aide says, "Come on, John, you can do it."

g. Requesting, Suggesting. The agent asks the target for something, asks about something, or asks or proposes that the target do something, or leads an activity with the intention that target should follow. This category is differentiated from demanding by examining the intensity of the method, which in the case of this category is mild or matter-of-fact.

Example: George and two other children are seated around a small table with Mrs. N. They each have a glob of clay. Mrs. N. tells them, "Pat it, pat it." George pats his clay.

h. Challenging. The agent attempts to influence the target individual's behavior by comparing his performance to his peer's, or by expressing doubt or belief in his capabilities, e.g., "I bet you can't find where this puzzle piece goes."

Example: Mrs. M. and all the children but Paul are standing tapping their feet in time to a record. Mrs. M. says, "Look at lazy Paul, lazy Paul. He can't stamp his feet." Paul smiles and looks at Mrs. M. but doesn't get up.

3. Strongly Coercive

i. Blocking. The agent stops or attempts to stop the behavior of the target by saying "no", "don't", or "stop", retrieving, restraining, or holding onto.

Example: Paul has been knocking the pegs off of Tina's board. Mrs. M. lifts Paul and takes him away. She says to him, "We don't do that to our friends. You sit here." She puts him back in his chair.

j. Demanding. The agent attempts to pressure or force the individual into doing something in line with his desire. It is more forceful than a request, in that it takes the form of a command or of forcefully physically moving the individual in a desired direction. This category is differentiated from suggesting by examining the intensity of the method, which in the case of this category is strong or harsh.

Example: Ron has been yelling at Chris. Mrs. N. shouts at Ron, "Stop yelling. You don't have to use your big voice."

k. Attacking. The agent forcefully tries to injure the target by physically attacking, stealing, or insulting.

Example: Willie wanders into the room, walks over to Diane and for no apparent reason, kicks her. She doesn't respond to him, just lets him kick. He continues kicking.

4. Other. AU methods which could not be classified into any of the above categories.

B. Verbal or Nonverbal. Each method is coded according to whether it has a verbal component to it or not.

1. Verbal.

2. Nonverbal.

3. Not Clear.

Responses. Following the agent's method, response to that method was coded on the part of the target individual. If there appeared to be two responses to one method, the dominant response was chosen. If the responses seemed equal, then the last response to the method was chosen.

Responses were coded in two ways: (1) for th congruence of the response with the association units goal; (2) for whether the response had a verbal component to it or was entirely nonverbal, as follows:

A. Congruence of Response with Method. Responses to agents' attempts to influence are divided into two broad categories. One indicates that the response is congruent with the basic association unit aim. The other indicates that the response is not congruent. The broad categories are divided into subcategories in order to indicate, more specifically, the adaptive behavior of the target individual.

1. Congruent Responses.

a. Attending. The target individual watches or looks toward an event with a curious, interested expression.

Example: Mrs. M. is reading a book to the children. Lois is sitting on the floor in front of Mrs. M, listening attentively.

b. Accepting, Acknowledging. The target individual acquiesces, acknowledges, ceases to do something, or lets something be done to him and does not actively join in or assist.

Example: The teacher is holding a number of books. She asks Lois if she would like to have one of the books. Lois says, "yes" and takes the book the teacher hands her.

c. Complying Correctly. The target individual gives an active response called for by the agent, such as giving information or becoming involved in an activity.

Example: Sheryl is having a difficult time seeing the lotto cards on the table. The aide says to her, "Go sit by Chris, then you can see." Sheryl moves to the end of the table and sits by Chris.

d. Complying Incorrectly. The target attempts to give an active response called for by the agent, but does so incorrectly.

Example: Sheryl is playing a color matching game with the teacher. The teacher gives Sheryl a card and says, "Which end do you match this up to?" Sheryl tries to match it but doesn't put in in the right place.

e. Informing. The target responds to the agent with information that is not directly called for but which he believes to be of interest or use to the source.

Example: The children are cleaning up. Lois tells Katny that the house corner is in need of sweeping. Katny is already sweeping the house corner and says, "I'm doing it. I'm doing it."

2. Non-congruent Responses

f. Withdrawing. The target individual retreats out of the field by such means as leaving the situation, stepping away, or leaning away.

Example: All of the children but Jeff are singing and doing motions to a song with Mrs. N.

Mrs. N. looks at Jeff and indicates with her hand (as if to say "sing along.") Jeff moves back into the corner and doesn't sing.

g. Ignoring. The target individual ignores the agent by continuing with a current activity.

Example: Willie and George are playing with cars together. Willie says, "George, can I play with your truck?" George doesn't answer and continues running his truck across the rug.

h. Whining, Crying.

Example: Dina pulls a cowboy hat away from Jeff. Jeff begins to cry.

i. Delaying. The target individual postpones or temporarily withholds.

Example: Greg tells Mrs. N. that he wants some more paper. Mrs. N. says, "Just a minute."

j. Seeking Assistance. The target individual responds by seeking help or protection from an adult or child.

Example: Ron just kicked Joan. Joan goes over to an aide and says, "Ron kicked me."

k. Questioning. The target individual inquires for additional information, clarification, or for an explanation of the behavior of the agent.

Example: Mrs. M. asks Mary to move a chair to the corner of the room. Mary says, "Why does it have to go in the corner?"

l. Explaining. The target individual provides a rationale for his own or another's behavior.

Example: An aide is working with Diane at a small table with a puzzle. Diane asks, (about a puzzle piece) "Can it fit here?" The aide explains that the picture puzzle has two straight edges so it belongs in the corner.

m. Negating. The target individual rejects, denies, or disagrees with the behavior of the agent by pushing an object away, retrieving a confiscated object, refusing to do something, or saying something like, "No", or "I disagree".

Example: Diane is sitting on the chair pounding on the piano when she's supposed to be on the rug. Mrs. M. picks her up and tries to hand her to an aide. Diane says, "No" and breaks away from the aide saying, "You're not going to take me."

n. Attacking. The target individual forcefully tries to injure the agent by physically attacking, threatening to injure, stealing, or verbally insulting.

Example: Billy grabs Joe's truck. Joe hits him hard with a block.

Unitizing and Coding the Observations

One coder unitized and coded the specimen records for activity units. In order to insure that coding of activity units and association units would be independent, two different coders (one of whom was the principal investigator) unitized and coded the records for association units. The coders were given several weeks of training prior to coding the actual records for the study. Training consisted of practice at coding records and discussing differences of opinion with the principal investigator.

Following coding, activity unit and association unit duration was determined by listening to the tapes, timing the length of the unit with a stop watch, and recording its time length on the typed record.

Reliabilities

Interobserver Reliabilities. Each of the five observers was twice paired with another observer and scheduled to go into a classroom to observe simultaneously with him for one observation period. During ten observation hours in which observers were paired, thirty-two pairs of ten-minute specimen records were collected, upon which the reliability estimates were computed. The pairs of observations were unitized and coded by one coder.

The pairs of observations were examined for:

(1) the extent to which activity units, association units, and method-response pairs were seen, and not overlooked by each observer.

(2) the extent to which activity units, association units, and method-response pairs, when seen by both members of an observer pair, were coded in the same way.

Activity units, association units, and method-response pairs were marked as seen by both observers when their descriptive accounts were essentially the same in span and content.

The fraction of events seen was calculated for each observer by dividing the number of events which he and his partners both saw by the total number of events his partners saw (which included events seen in common plus events observed only by the partners). The resulting figure was an estimate of the percentage of total number of events seen by the observer. It is reported for each observer in Table 3. Averaging the percentage of events seen by each observer yields an overall estimate of 96.7 per cent for activity units, 75.8 per cent for association units, and 75.9 per cent for method-response pairs. These results show that observers seldom overlooked activity units, but they failed to see approximately twenty-five per cent of the association units and method-response pairs seen by their partners.

A closer examination of missed events indicated that observers tended to overlook association units which were short in duration. Almost all of the overlooked units were less than ten seconds long. Otherwise, there was no tendency for missed events to favor some categories more than others. The relatively high degree of overlook of social events by the observer is similar to the level of overlook reported by Berk (1971) in a study of environmental force units in nursery school settings. The rapidity with which children's behavior occurs in the preschool environment probably accounts for it.

Table 4 shows the extent to which activity units, association units, methods, and responses observed by both members of an observer pair were identically coded. The percentages of agreement are all in the high eighties and nineties, except for the response congruence categories, at 75.6 per cent.

In order to determine the reliability of the measure of unit duration, time lengths of activity units and association units observed by both members of an observer pair were compared. Activity units ranged from thirty seconds to ten

Table 3

INTER-OBSERVER AGREEMENT IN OBSERVATION OF ACTIVITY UNITS, ASSOCIATION UNITS, METHODS, AND RESPONSES

	OBSERVERS														
	A			B			C			D			E		
	Number Seen by Both A and A's Partners	Total Number Seen by A's Partners	Percent of Agreement	Number Seen by Both B and B's Partners	Total Number Seen by B's Partners	Percent of Agreement	Number Seen by Both C and C's Partners	Total Number Seen by C's Partners	Percent of Agreement	Number Seen by Both D and D's Partners	Total Number Seen by D's Partners	Percent of Agreement	Number Seen by Both E and E's Partners	Total Number Seen by E's Partners	Percent of Agreement
Activity Units	18	19	94.7	16	18	88.9	16	16	100	14	14	100	12	12	100
Association Units	65	90	72.3	66	87	75.9	60	75	80.0	72	91	79.1	69	96	71.9
Method-Response Pairs	80	110	72.8	75	101	74.3	73	92	79.4	87	108	80.6	79	109	72.5

Table 4

INTER-OBSERVER AGREEMENT IN CODING OF PAIRS OF INDEPENDENTLY RECORDED ACTIVITY UNITS, ASSOCIATION UNITS, AND METHOD-RESPONSE PAIRS

	Number Coded Same	Total Number Recorded by Observer Pairs	Percentage of Agreement
I. Activity Units			
A. Utilization of Resources	35	38	92.1
B. Child Activity	36	38	94.7
C. Group Size	35	38	92.1
D. Coordination of Children's Actions	36	38	94.7
E. Teacher Leadership Pattern	35	38	92.1
F. Activity Initiation	35	38	92.1
II. Association Units			
A. Goal	160	166	95.8
B. Specificity	154	166	92.2
C. Agent	160	166	95.8
D. Target	157	166	94.0
III. Methods			
A. Coerciveness	186	197	94.4
B. Verbal-nonverbal	187	197	94.9
C. Agent	192	197	97.4
IV. Responses			
A. Congruence	149	197	75.6
B. Verbal-nonverbal	172	197	87.3
C. Target	188	197	95.4

minutes in length. An average difference of 15.42 seconds, with a standard deviation of 14.04 seconds, between pairs of activity units was found. Association units ranged from three seconds to ten minutes in length. An average difference of 7.48 seconds, with a standard deviation of 14.04 seconds, between pairs of association units was found.

Intercoder Reliabilities. The activity unit coder, and the principal investigator and the association unit coder and the principal investigator individually unitized and coded a set of fifteen ten-minute specimen records which were compared. Table 5 shows the extent to which the same activity units and association units were identically unitized and the same method-response pairs were designated by the pairs of coders. Agreement figures are all above ninety per cent.

Table 6 shows the extent to which identically designated units were coded in the same way. For the activity unit dimensions, utilization of resources, coordination of children's actions, and activity initiation were above ninety per cent, child activity in the low eighties, and group size and teacher leadership pattern in the high seventies. For the association units, the goal code and response congruence are in the high seventies, while coerciveness of method is in the low eighties. The remainder of the codes show intercoder agreement figures in the nineties.

Teacher Interview

The purpose of the teacher interview was to find out how teachers ideally would have liked to arrange activities in their classrooms as compared with the activity constellations observers actually saw and recorded. Were teachers' ideal activity purposes actually translated into classroom practice?

So that the interview experience would not bias the teacher's observed behavior in the classroom, teacher interviews were carried out during the three-week period after collection of the observational data from all schools had been completed. The principal investigator acted as the interviewer for all six settings. Head teachers of the Head Start, Montessori, and Laboratory Nursery School classrooms and directors of the Franchise and Community Day Care settings were asked to participate, as these individuals were responsible for curriculum planning. Although the day care center directors did not actually teach and were therefore not as closely involved in program implementation as the four other interviewees, they were almost always present in the environment when observers made their recordings and had intimate knowledge of daily happenings in the classroom.

Table 5

INTER-CODER AGREEMENT IN IDENTIFICATION OF ASSOCIATION UNITS, METHODS, AND RESPONSES

	Total Identified by Both Coders	Total Identified by Coder A	Percent of Agreement for Coder B	Total Identified by Coder B	Percent of Agreement for Coder A
Activity Units	27	27	100.0	29	93.1
Association Units	126	137	91.1	134	94.3
Method-Response Pairs	147	160	91.6	160	91.6

Table 6

INTER-CODER AGREEMENT IN CODING OF IDENTICALLY DESCRIBED ACTIVITY UNITS, ASSOCIATION UNITS, METHODS, AND RESPONSES

	Coded Same	Total Number Coded	Percent of Agreement
I. Activity Units			
A. Utilization of Resources	26	27	96.3
B. Child Activity	22	27	81.5
C. Group Size	21	27	77.8
D. Coordination of Children's Actions	26	27	96.3
E. Teacher Leadership Pattern	21	27	77.3
F. Activity Initiation	27	27	100.0
II. Association Units			
A. Goal	100	127	78.4
B. Specificity	122	127	96.0
C. Agent	124	127	97.6
D. Target	121	127	95.2
III. Methods			
A. Coerciveness	124	150	82.6
B. Verbal-nonverbal	144	150	96.0
C. Agent	147	150	98.0
IV. Responses			
A. Congruence	117	150	78.0
B. Verbal-nonverbal	138	150	92.0
C. Target	143	150	95.3

To facilitate the comparison of teacher responses to observational results, the activity dimensions on which the data were coded were explained to the teacher, and she was asked to rank the categories for each dimension separately according to how much time she would ideally like to devote to activity qualities in her classroom. To make the task of ranking each set of categories easier for the teacher, a Q-sort technique was devised in which the categories were placed on cards and presented to the teacher along with four boxes. The boxes were labeled, in order, from "most time" to "least time." The teacher was asked to sort the categories into the boxes according to how much time she would like to devote to them in her classroom. Then she was asked to rank-order the categories she placed in each of the four boxes. The teachers seemed to easily comprehend the observational categories to which they were asked to respond.

In order to gain insight into the rationale behind each teacher's program objectives, after sorting each set of categories, she was asked to comment on the ones she ranked highest and lowest. A sample teacher interview schedule is given in Appendix B.

Data Analysis

A gross overall examination of the data was carried out by computing for the total sample and for each school separately: (1) frequency and percentage distributions and cumulative time and percentage of time devoted to the categories on each of the six activity dimensions and, (2) frequency and percentage distributions of association unit, method and response characteristics for communications from teacher to child, child to teacher, and child to child.

In order to study the effects of school differences and child characteristics on activity unit and social interaction characteristics, the activity and social interaction distributions described above were also computed separately for each individual child. These within-child scores were entered into several four-way analyses of variance. The factors were: (1) school (six levels; one for each of the six participant settings); (2) age (two levels: young, under three years of age; and older, over three years of age); (3) sex (two levels: boys and girls); and (4) social class (two levels: high, for children with parents holding professional-managerial employment; and low, for children with parents holding semi-skilled or unskilled employment or not employed). Schools were compared with one another by contrasting a given school with the average of the other four schools on each dependent variable. Because the cells contained unequal numbers of observations, tests of significance for each factor and for each interaction were reordered so that they appeared first in the analysis.

To explore the way in which situational factors influenced social interaction, contingency tables were computed for the total sample and for each individual school. These tables cross-tabulated association unit, method, and response characteristics against the activity dimensions, method and response characteristics against association unit qualities and response characteristics against method qualities. Because of the large size of these tables and the exploratory nature of the analyses, interpretations of the data were made on the basis of perusal of the tables, and statistical tests were not employed.

The relationship of teacher interview responses to observational data was determined by computing rank-order correlations between teachers' ordering of the activity categories and their actual cumulative time of occurrence in the classrooms.

Summary

Specimen records of ongoing classroom behavior of 103 three-, four-, and five-year-old children enrolled in six preschool settings were collected by a team of five observers. These records were coded into activity units which were described in terms of (1) resources, or the basic endeavor or purpose of activities; (2) child behavior requirements of the activities; (3) group size of child participants; (4) how children's actions were coordinated or interrelated; (5) teacher leadership pattern; and (6) whether activities were teacher- or child-initiated.

Social interaction among teachers and children was studied by coding specimen records for association units. An association unit is a goal-directed action of an agent, or initiator of a social contact, to a target individual. It enables classroom specimen records of children to be analyzed for social contacts from teachers to children, children to teachers, and children to other children. The association units were coded for: (1) the goal of the agent of the interaction; and (2) specificity, or the extent to which they were directed at single or multiple target individuals. In addition, every distinctly different attempt on the part of an agent to influence a target's response was identified. These influence attempts were called methods and were coded for their (1) coerciveness or forcefulness; and (2) whether they were verbal or nonverbal. Target individual's responses to methods were coded for (1) their congruence with the agent's end goal and (2) whether they were verbal or nonverbal.

Data analyses methods were devised (1) to explore the relationship of activity unit characteristics to social interaction and (2) to examine the effects of school differences and of children's age, sex, and social class on activity participation and social interaction.

Interview procedures were developed in order to assess teachers' ideal activity purposes in the classroom so that these could be matched against the constellations of activities actually seen by observers.

RESULTS

The findings of this study are presented in three parts. First, a quantified picture of the six classrooms in terms of activity characteristics and social interaction is presented. Second, the results go beyond the simple statement of activity and social interaction values to an exploration of relations between them. Finally, the relationship of personal characteristics of children to activity participation and social interaction is examined.

Part I

OVERALL DESCRIPTION OF CLASSROOM ACTIVITIES IN THE SIX SETTINGS

A total of 1471 activity units was observed in a total of 103 hours of observation. Dividing 1471 by 103 shows that each child was seen in an average of 14 activity units during the hour he was observed. Variation around this overall mean for 6 classrooms was slight, from a low of 12.3 in Head Start to a high of 15.1 in Laboratory Nursery School Classroom No. 1. The activity units ranged in length from thirty seconds to the maximum 10 minutes for which a child was observed.

The activity units can be considered from the point of view of their content, or the prominence of environmental qualities, in one of two ways: the amount of time activity qualities persisted in the classroom, or the number of activity units which showed various qualities. The data analyses revealed a close relationship between frequency of appearance and amount of time children were observed in different activities. The index chosen for intensive study here was cumulative time of occurrence of activity qualities, since it gave the clearest indication of children's activity involvement in the classroom.

The questions which this analysis of the observations sought to answer were:

1. What were the activity resources within these settings? How much and what percentage of time did they consume?
2. What kinds of passive and active child behaviors were observed in the classrooms? What was the amount and percentage of time each consumed?
3. What were the typical grouping patterns within the classrooms? How much and what percentage of time did children spend in various types of groupings?
4. What kinds of action coordination among children did activities in the six settings encourage? For how much and what percentage of time did activities involve coordination or non-coordination of children's actions?
5. What were the teacher leadership patterns within activities in the classrooms? How much time and what percentage of time was the teacher observed not in the activity, providing minimal leadership, and providing active leadership.
6. Who initiated activities, teacher or child, in the six classrooms, and how much time was spent in either teacher-initiated or child-initiated activities?

These questions were answered by computing cumulative time and percentages of time devoted to qualities of the six activity dimensions for each setting separately and all settings combined. In addition, these distributions were computed for each child separately, and the scores were entered into the analysis of variance described in the data analysis section of the previous chapter. In order to compare the settings, each school was contrasted with the mean of the remaining five schools.

Utilization of resources. The cumulative time distributions given in table 7 show that, considering all schools together, resources which consumed most time were transition (30 per cent), table activities (10 per cent) eating (10 per cent), book-related (9 per cent), dramatic play (8 per cent), and arts and crafts (8 per cent). Resources which were low in overall occurrence included block building (2 per cent), organized group activities (3 per cent), animal and plant care (1 per cent), and bodily maintenance activities of resting (3 per cent), dressing (1 per cent), and washing, toileting (1 per cent).

The distributions for each individual setting given in table 7 and the analysis of variance findings presented in table 8 indicate that transition was the most prominent resource in all schools, despite the fact that there were major variations among the schools in other activity characteristics. This finding indicates that despite the particular activity emphasis of a preschool program, the pronounced amount of time (from 20 to 35 per cent) spent by children in between activities seems to be a fact of classroom life. Book-related activities were prominent in every classroom except Head Start, and arts and crafts were conspicuous in four out of the six settings. In Head Start and the Franchise Day Care Center, the two settings in which providing adequate nutrition for the children was an important part of the program, eating consumed much time (28 and 17 per cent, respectively).

The analysis of variance findings (see table 8) indicate that despite these commonalities, there were important differences among the six settings.

As compared with the other environments, the Franchise Day Care Center significantly deemphasized time spent in table activities and eating and placed a heavy emphasis upon media experiences. Other prominent resources in this setting were book-related and playground activities.

Head Start was significantly lower than the other five environments in time spent in book related activities and table activities. Bodily maintenance resources of eating and washing, toileting were significantly accentuated. Dramatic play was also an important resource in this program, though it was not significantly greater in Head Start than in the other schools combined.

Montessori accentuated table activities, organized group activities and animal and plant care and deemphasized dramatic play, media experiences, and eating. In addition, children in the Montessori setting spent significantly more time in transition than children in any other environment. Book-related and arts and crafts activities were also important resources in the Montessori preschool.

Table 7

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION UTILIZATION OF RESOURCES AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

	Franchise Day Care			Head Start			Montessori		
	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
Book-Related	24	121:29	11.2	6	29:16	3.5	21	112:49	8.2
Block Building	2	7:08	0.7	4	23:15	2.8	6	29:22	2.1
Table Activities	9	35:20	3.3	11	50:18	6.0	67	295:38	21.4
Dramatic Play	11	43:55	4.1	10	71:44	8.5	10	47:14	3.4
Arts and Crafts	13	83;51	7.7	5	31:24	3.7	23	120:05	8.7
Organized Group Act.	11	22:57	2.1	6	34:48	4.1	17	77:09	5.6
Music	11	37:54	3.5	6	38:37	4.6	9	30:06	2.2
Animal and Plant Care	2	6:19	0.6	0	0:00	0.0	18	77:32	5.6
Playground Activities	14	58:24	5.4	3	4:45	0.6	0	0:00	0.0
Media Experiences	30	218:27	20.2	1	9:00	1.1	0	0:00	0.0
Bodily Maintenance									
Eating	11	63:10	5.8	34	232:58	27.7	13	50:09	3.6
Resting	5	33:17	3.1	3	17:34	2.1	0	0:00	0.0
Dressing	4	6:21	0.6	1	4:17	0.5	7	37:12	2.7
Washing, Toileting	2	1:58	0.2	13	26:36	3.2	5	8:47	0.7
Transition	107	332:25	30.8	71	265:23	31.6	144	486:53	35.3
Other	1	7:05	0.7	0	0:00	0.0	1	7:04	0.5
Total	257	1080:00	100.0	174	840:00	100.0	341	1380:00	100.0

Table 7 continued

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION UTILIZATION OF RESOURCES AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

Community Day Care			Laboratory School I			Laboratory School II			Total		
Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
17	76:56	8.0	24	114:00	11.2	17	69:54	7.8	109	524:30	8.5
1	7:06	0.7	6	23:45	2.3	8	28:23	3.2	27	118:59	1.9
10	55:33	5.8	22	143:28	14.1	15	95:30	10.6	134	675:47	10.9
17	88:21	9.2	26	143:06	14.0	18	106:26	11.8	92	500:46	8.1
17	97:55	10.2	9	46:27	4.6	19	105:32	11.7	86	485:14	7.8
6	15:46	1.6	0	0:00	0.0	1	10:00	1.1	41	160:40	2.6
7	27:33	2.9	9	20:17	2.0	17	50:11	5.6	59	204:38	3.3
0	0:00	0.0	0	0:00	0.0	0	0:00	0.0	20	83:51	1.4
10	34:16	3.6	19	107:25	10.5	11	33:31	3.7	57	238:21	3.9
22	159:47	16.6	0	0:00	0.0	0	0:00	0.0	53	387:14	6.3
22	160:21	16.7	14	43:17	4.2	15	47:15	5.2	109	594:10	9.7
4	22:50	2.4	7	39:02	3.3	11	44:54	5.0	30	157:42	2.5
0	0:00	0.0	5	19:52	2.0	3	10:46	1.2	20	78:28	1.3
8	9:22	1.0	6	11:11	1.1	9	11:21	1.3	43	69:15	1.1
70	190:48	19.9	99	306:07	30.0	93	286:17	31.8	584	1867:53	30.2
4	18:26	1.4	1	1:57	0.2	0	0:00	0.0	7	29:32	0.5
215	960:00	100.0	247	1020:00	100.0	273	900:00	100.0	1471	6130:00	100.0

Table 8

Analysis of Variance Comparisons of School Means on Activity Dimension Utilization of Resources

	Franchise Day Care Center		Head Start		Montessori		Community Day Care Center		Laboratory Nursery School 1		Laboratory Nursery School 2	
	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%
Book-related	405	11.4	125*	3.5*	294	8.2	289	7.9	403	11.2	280	7.8
Block Building	24	0.7	100	2.8	77	2.1	27	0.8	83	2.3	114	3.2
Table Activities	118**	3.3**	216**	6.1**	771**	21.4**	208*	5.9*	506	14.1	382	10.7
Dramatic Play	146	4.1	307	8.5	123**	3.4**	331	9.3	505	14.0	426	11.8
Arts and Crafts	280	7.9	135	3.7	313	8.7	367*	10.2*	164	4.6	422	11.7
Organized Group Activities	77	2.1	149	4.2	201**	5.6**	59	1.6	0	0.0	40	1.1
Music	126	3.5	166	4.6	79	2.3	103	2.9	72	1.9	201	5.5
Animal and Plant Care	21	0.6	0	0	202**	5.7**	0	0.0	0	0.0	0	0.0
Playground Activities	195	5.3	20	0.6	0**	0.0**	129**	3.6**	379	10.6	134	3.7
Media Experiences	728**	20.3**	39	1.1	0**	0.0**	599**	16.6**	0**	0.0**	0**	0.0**
Bodily Maintenance												
Eating	211**	5.8**	998**	27.6**	131**	3.6**	601**	16.8**	153**	4.3**	189**	5.3**
Resting	111	3.1	76	2.1	0*	0.0*	86	2.4	138	3.8	180	4.9
Dressing	21	0.6	18	0.5	97	2.7	0	0.0	70	1.9	43	1.2
Washing, toileting	7	0.2	114**	3.1**	23	0.7	35	0.9	39	1.1	45	1.2
Transition	1108	30.7	1137	31.5	1270**	35.2**	716	20.0	1080	30.1	1145	31.1

Note - DF = 1 and 74.

[1] Cumulative time is given in minutes and seconds.

* F > 3.5, p < .05.

** F > 7.0, p < .01.

In the Community Day Care Center, resources of arts and crafts, playground activities, media experiences, and eating were significantly emphasized, and table activities were significantly less prominent than in the other environments. Dramatic play and book-related activities were also an important resource in this setting.

Children in Laboratory Nursery School Classrooms 1 and 2 spent significantly less time in media experiences and eating as compared with the other schools. Otherwise, these settings closely matched the norm of all environments combined by emphasizing book-related, table activities, dramatic play, arts and crafts and organized group activities over other resources. Next to Head Start and the Community Day Care Center, children in Laboratory Nursery School Classroom No. 2 spent more time in eating than in any other setting.

Child Behavior. The total distribution given in Table 9 indicates that readying (19 percent), watching, listening (17 percent), manipulating (15 percent), performing, acting out (10 percent), and eating (10 percent) were the most conspicuous child behaviors encouraged by activities in these six settings. Behaviors which consumed little time were waiting, nonactive, and vocal and instrumental expression. In an overall sense, children in these settings spent 23 percent of their time in activities which encouraged passive behaviors and 77 percent in activities which encouraged active behaviors.

The distributions for the individual schools given in Table 9 and the analyses of variance findings in Table 10 show that there were differences among the environments in the child behaviors encouraged by activities.

The Franchise Day Care Center placed a significantly heavier emphasis on watching, listening and significantly less emphasis upon eating and manipulating than the other environments. In addition, readying; wandering, exploring; drawing, making; and performing, acting out were prominent child behaviors in this setting.

Head Start children spent significantly more time in readying, eating, and vocal and instrumental expression and significantly less time watching, listening; wandering, exploring; and manipulating than did children in the other schools. Performing, acting out was also a child behavior in which children spent a conspicuous amount of time in this environment.

The Montessori Nursery School distinguished itself by placing a significantly greater emphasis upon wandering, exploring and manipulating and less emphasis upon nonactive; eating; and performing, acting out child behaviors. In addition, readying and watching, listening behaviors were also conspicuous in this setting.

Table 9

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION CHILD BEHAVIOR AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

	Franchise Day Care			Head Start			Montessori		
	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
Passive									
Nonactive	5	33:17	3.1	3	17:39	2.1	1	1:17	0.1
Waiting	12	40:05	3.7	3	6:30	0.8	18	57:04	4.2
Watching, Listening	59	358:19	33.2	15	66:38	7.9	39	175:20	12.7
Active									
Readying	61	167:49	15.5	61	234:43	27.9	68	228:26	16.6
Wandering, Exploring	34	124:31	11.5	5	16:39	2.0	59	208:24	15.1
Eating	11	63:10	5.8	34	232:58	27.7	13	50:09	3.6
Manipulating	12	41:25	3.8	12	51:22	6.1	87	399:10	28.9
Drawing, Making	13	83:51	7.8	5	31:26	3.8	18	103:40	7.5
Vocal and Instrumental Expression	8	18:16	1.7	5	33:52	4.0	0	0:00	0.0
Performing, Acting Out	23	85:16	7.9	12	81:29	9.7	14	63:51	4.6
Large Muscle Activity	17	62:06	5.7	10	45:54	5.5	19	79:03	5.7
Other	2	1:55	0.9	9	20:50	2.5	5	13:36	1.0
Total	257	1080:00	100.0	174	840:00	100.0	341	1380:00	100.0

Table 9 continued

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY
DIMENSION CHILD BEHAVIOR AND DISTRIBUTIONS
FOR EACH OF THE SIX SCHOOLS

Community Day Care			Laboratory School I			Laboratory School II			Total		
Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
4	22:50	2.4	7	39:02	3.8	11	44:55	5.0	31	159:00	2.6
7	28:49	3.0	11	28:39	2.8	10	21:34	2.3	61	182:40	3.0
42	250:22	26.1	27	127:51	12.5	22	91:42	10.1	204	1070:12	17.3
51	122:35	12.8	59	198:02	19.4	64	208:02	23.1	364	1159:37	18.7
12	39:24	4.1	29	79:25	7.8	19	56:41	6.3	158	525:04	8.5
22	160:21	16.7	14	43:17	4.3	15	47:15	5.2	109	597:10	9.6
19	95:01	9.9	33	180:27	17.7	31	134:11	14.9	194	901:36	14.6
13	71:02	7.4	9	46:27	4.6	17	95:14	10.5	75	431:40	7.0
2	13:02	1.3	6	9:14	0.9	7	23:26	2.6	28	97:50	1.6
24	105:19	11.0	29	155:43	15.3	27	133:01	14.7	129	624:39	10.1
13	41:17	4.3	19	107:26	10.5	12	33:28	3.7	90	369:15	6.0
6	9:58	1.0	4	4:27	0.4	2	10:31	1.2	28	61:17	1.0
215	960:00	100.0	247	1020:00	100.0	237	900:00	100.0	1471	6180:00	100.0

Table 10

ANALYSIS OF VARIANCE COMPARISONS OF SCHOOL MEANS ON ACTIVITY DIMENSION CHILD BEHAVIOR

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%
Nonactive	111	3.1	76	2.1	3*	0.8*	86	2.4	138	3.8	122	3.3
Waiting	134	3.7	28	0.8	149	4.1	108	3.0	101	2.8	126	3.5
Watching, Listening	1194**	33.2**	286*	8.0*	457	12.7	939**	26.1**	451**	12.6**	746**	20.7**
Readying	559	15.6	1006**	27.9**	596	16.6	460**	12.8**	699*	19.3*	643**	17.8**
Wandering, Exploring	415	11.6	71**	2.9**	544**	15.1**	148	4.7	280	7.8	353	9.8
Eating	211**	5.8**	998**	27.6**	131**	3.6**	601**	16.8**	153**	4.3**	246**	6.8**
Manipulating	138**	3.9**	220**	6.1**	1041**	28.9**	356	10.0	637	17.8	536	14.9
Drawing, Making	280	7.9	135	3.7	271	7.5	266	7.4	164*	4.6*	221	6.2
Vocal and Instrumental Expression	60.9	1.6	145**	4.8**	0	0.0	49	1.4	33	0.9	50	1.4
Performing, Acting Out	284	7.8	349	9.6	167**	4.7	395	11.0	550	15.2	353	9.8
Large Muscle Activity	207	5.7	197	5.6	206	5.7	155*	4.4*	379	19.6	185	5.1

Note - DF = 1 and 74.

[1] Cumulative time is given in seconds.

* F 3.5, p .05.

** F 7.0, p .01.

In the Community Day Care Center, children spent significantly more time with child behaviors of watching, listening and eating and significantly less time with readying and large muscle activities than in the other schools combined. Activities encouraging child behaviors of performing, acting out and manipulating were also notable in this setting.

While readying was slightly but significantly pronounced in Laboratory Nursery School Classroom No. 1, watching, listening; eating; and drawing, making were significantly played down. Other salient child behaviors in this setting were manipulating; performing, acting out; and large muscle activity.

Laboratory Nursery School number 2 was notable for its significant emphasis on watching, listening, readying and eating. In addition, manipulating; performing, acting out; and wandering, exploring were conspicuous child behaviors in this environment.

Group Size. The cumulative time distributions shown in Table 11 indicate that in the six schools combined, children were most often seen in activities involving the total class (41 percent of the time). Similar to one another in overall prominence in the classrooms were small clusters (17 percent), single child arrangements (16 percent) and the large cluster pattern (15 percent).

Though these overall findings represent a norm, an examination of the individual school distributions in Table 11 as well as the analysis of variance findings in Table 12 indicate that the six settings differed widely from one another in the grouping arrangements they encouraged.

As compared with the other schools, the Franchise Day Care Center emphasized the large cluster arrangement and discouraged small cluster and pair arrangements.

Total class group activities were overwhelmingly prominent in Head Start, at the expense of devoting time to more intimate arrangements of small cluster, pair, and single child.

Of all schools, the Montessori Nursery School devoted most time to single child and pair arrangements. It also allocated significantly more time to large cluster activities. The total class group arrangement was particularly minimized in Montessori, and children spent significantly less time than in other schools in small clusters as well.

Except for significant deemphasis upon large clusters, the Community Day Care Center remained close to the norm of the other schools combined. This was true of Laboratory School number 1 and number 2 on all grouping qualities. Total class group and small cluster arrangements presided in these last three settings.

Table 11

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION GROUP SIZE AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

	Franchise Day Care			Head Start			Montessori		
	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
Total Class Group	82	380:26	35.2	121	616:28	73.4	38	185:35	13.5
Large Cluster	92	394:20	36.5	23	83:27	9.9	72	254:36	18.5
Small Cluster	21	108:24	10.1	12	79:21	9.5	52	215:51	15.6
Pair	15	57:35	5.3	7	25:26	3.0	73	320:17	23.2
Single Child	47	139:15	12.9	11	35:18	4.2	106	403:41	29.2
Not Clear	0	0:00	0.0	0	0:00	0.0	0	0:00	0.0
Total	257	1080:00	100.0	174	840:00	100.0	341	1380:00	100.0

Table 11 Continued

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION GROUP SIZE AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

Community Day Care			Laboratory School I			Laboratory School II			Total		
Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
88	478:25	4[illegible].8	109	428:31	42.0	118	414:11	46.0	556	2503:36	40.5
28	116:05	12.1	6	27:29	2.7	7	42:30	4.7	228	918:27	14.9
46	199:22	20.8	44	264:01	25.9	36	184:54	20.5	211	1051:53	17.0
17	59:25	6.2	29	109:00	10.7	34	124:21	13.8	175	696:04	11.3
36	106:43	11.1	59	190:59	18.7	42	134:04	14.9	301	1010:00	16.3
0	0:00	0.0	0	0:00	0.0	0	0:00	0.0	0	0:00	0.0
215	960:00	100.0	247	1020:00	100.0	237	900:00	100.0	1471	6180:00	100.0

Table 12

ANALYSIS OF VARIANCE COMPARISONS OF SCHOOL MEANS ON ACTIVITY DIMENSION GROUP SIZE

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%
Total Class	1268	35.3	2642**	73.5**	484**	13.6**	1794	49.8	1512	42.0	1657	45.9
Large Cluster	1314**	36.5**	358	9.9	664**	18.5**	435**	12.1**	97	2.8	170	4.8
Small Cluster	361*	10.1*	340**	9.4**	563*	15.6*	748	20.8	932	25.9	740	20.6
Pair	192**	5.4**	109**	3.1**	836**	23.2**	223	6.3	385	10.8	498	13.9
Single Child	464	12.8	151**	4.2**	1053**	29.3**	400	11.1	674	18.6	536	14.9

Note - DF = 1 and 74.

[1] Cumulative time is given in seconds

*F 3.5, p .05.

**F 7.0, p .01.

Coordination of children's actions. The total distribution given in table 13 indicates that preschool activities overwhelmingly favored noncoordination of children's actions (85 per cent of the time), and activities encouraged children's actions to be reciprocally coordinated more often than simultaneously coordinated (11 per cent as opposed to 4 per cent).

The distributions for the individual schools in table 13 and the analysis of variance findings in table 14 indicate slight variations from these norms for three of the schools. The Franchise Day Care, Head Start and Community Day Care settings significantly discouraged reciprocal coordination, and the Community Day Care Center, as compared with the other environments significantly accentuated noncoordination of children's actions in activities.

Teacher leadership pattern. As indicated by the overall distribution of the six schools combined in table 15, teachers spent a comparable amount of time (approximately 30 per cent) as watcher, helpers, active leaders, and not in activities at all. Very seldom (less than 1 per cent of the time) were they seen as a participator along with children in activities.

School comparisons indicated by the distributions shown in table 15 and by the analysis of variance findings in table 16 reveal that, except for the Franchise Day Care Center, there are major deviations from this average for the individual settings. Head Start significantly stressed teachers' watcher, helper and active leadership roles and minimized the amount of time teachers spend not in activities. Similarly, in the Community Day Care Center, the watcher helper role was encouraged and the not in activity pattern was discouraged. In contrast, in the Montessori Nursery School, significantly greater emphasis than in any setting was placed upon teachers not entering into activities, and watcher, helper and active leadership roles were significantly discouraged. Laboratory Nursery School No. 1 differed significantly from the norm of the other schools only by encouraging the not in activity teacher role. Laboratory Nursery School Classroom No. 2 differed only by significantly emphasizing the watcher, helper role.

Activity initiation. Though 62 percent of activity time was allocated to teacher-initiated activities as opposed to 37 per cent to child-initiated activities for all schools combined, the six schools showed marked individual variation on this dimension. Except for Laboratory Nursery School Classroom No. 1 which presented an even balance of teacher and child initiated activities to children all differed significantly from the norm (see table 17 for the school distributions and table 18 for the analysis of variance findings). The Franchise Day Care Center, Head Start, the Community Day Care Center, and Laboratory Nursery School Classroom No. 2 allocated significantly more time to teacher-initiated than to child-initiated activities as compared with the other schools. In the Franchise and Community Day Care settings the average child spent more than three times as much time in teacher-selected activities as child-selected ones; in Head Start he spent five time as much time in teacher-selected activities. In contrast to the other settings, the Montessori School placed a heavy emphasis upon child-initiated as opposed to teacher-initiated activities.

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Table 13

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY
DIMENSION COORDINATION OF CHILDREN'S ACTIONS
AND DISTRIBUTIONS FOR EACH OF
THE SIX SCHOOLS

	Franchise Day Care			Head Start			Montessori		
	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
Coordinated/ Simultaneous	23	64:17	5.9	7	31:41	3.8	13	36:50	2.7
Coordinated/ Reciprocal	9	41:01	3.8	9	54:56	6.5	29	158:04	11.4
Not Coordinated	225	974:42	90.2	158	753:23	89.7	299	1185:04	85.9
Not Clear	0	0:00	0.0	0	0:00	0.0	0	0:00	0.0
Total	257	1080:00	100.0	174	840:00	100.0	341	1380:00	100.0

Table 13 continued

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

Community Day Care			Laboratory School I			Laboratory School II			Total		
Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
8	31:59	5.7	9	24:45	2.4	17	50:11	5.6	77	239:45	3.8
13	54:29	5.7	43	225:30	22.1	22	132:30	14.7	125	666:30	10.7
194	873:32	91.0	195	769:45	75.5	198	717:19	79.7	1269	5273:45	85.3
0	0:00	0.0	0	0:00	0.0	0	0:00	0.0	0	0:00	0.0
215	960:00	100.0	247	1020:00	100.0	237	900:00	100.0	1471	6180:00	100.0

Table 14

ANALYSIS OF VARIANCE COMPARISONS OF SCHOOL MEANS ON ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%
Coordinated/ Simultaneous	214	5.9	136	3.8	96	2.7	120	3.3	874	2.4	201	5.5
Coordinated/ Reciprocal	137**	3.8**	235*	6.6*	412	11.5	204**	5.8**	796	22.2	530	14.7
Not Coordinated	3249	90.2	3229	89.6	3091	85.7	3276**	91.1**	2717	75.5	2869	79.7

Note - DF = 1 and 74.
[1]Cumulative time is given in seconds.
*F 3.5, p .05.
**F 7.0, p .01.

Table 15

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

	Franchise Day Care			Head Start			Montessori		
	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
Not in Activity	89	332:45	30.8	26	107:12	12.8	189	735:52	53.3
Minimal Leadership									
a. Watcher, Helper	63	359:25	33.3	73	400:51	47.7	72	298:03	21.6
b. Participator	1	1:55	0.2	3	12:39	1.5	4	16:58	1.2
Active Leadership	103	377:25	34.9	70	308:48	36.8	75	233:29	23.4
Not Clear	1	8:30	0.8	2	10:30	1.2	1	6:38	0.5
Total	257	1080:00	100.0	174	840:00	100.0	341	1380:00	100.0

Table 15 continued

TOTAL DISTRIBUTION OF CULULATIVE TIME FOR ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

Community Day Care			Laboratory School I			Laboratory School II			Total		
Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
52	220:34	23.0	107	383:17	37.6	61	201:03	22.3	524	1980:43	32.0
83	454:38	47.3	59	295:39	29.0	86	347:25	38.6	436	2156:01	34.9
0	0:00	0.0	4	15:41	1.5	1	1:47	0.2	13	49:00	0.9
80	284:48	29.7	77	325:23	31.9	89	349:45	38.9	494	1968:38	31.8
0	0:00	0.0	0	0:00	0.0	0	0:00	0.0	4	25:38	0.4
215	960:00	100.0	247	1020:00	100.0	237	900:00	100.0	1471	6180:00	100.0

Table 16

ANALYSIS OF VARIANCE COMPARISONS OF SCHOOL MEANS ON ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%
Not in Activity	1109	30.8	459**	12.8**	1920**	53.3**	827**	23.1**	1353**	37.6**	804	22.4
Watcher, Helper	1198	33.3	1718**	47.6**	778**	21.5**	1705**	47.4**	1043	29.1	1390**	38.5**
Partici-pator	6	0.2	54	1.5	44	1.2	0	0.0	55	1.5	7	0.2
Active Leader-ship	1258	34.7	1323*	36.8*	841*	23.4*	1086	29.6	1148	31.9	1399	38.9

Note - DF for Multivariate Fs = 30 and 45.
DF for Univariate Fs = 1 and 74.
[1] Cumulative time is given in seconds.
*F 3.5, p .05.
**F 7.0, p .01.

Table 17

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY
DIMENSION ACTIVITY INITIATION AND DISTRIBUTIONS
FOR EACH OF THE SIX SCHOOLS

	Franchise Day Care			Head Start			Montessori		
	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
Teacher-Initiated	183	814:07	75.4	147	703:02	83.7	127	496:91	36.0
Child-Initiated	73	255:53	23.7	26	136:28	16.2	211	870:43	63.1
Not Clear	1	10:00	0.9	1	0:30	0.1	3	12:22	0.9
Total	257	1080.00	100.0	174	840:00	100.0	341	1380:00	100.0

Table 17 continued

TOTAL DISTRIBUTION OF CUMULATIVE TIME FOR ACTIVITY DIMENSION ACTIVITY INITIATION AND DISTRIBUTIONS FOR EACH OF THE SIX SCHOOLS

Community Day Care			Laboratory School I			Laboratory School II			Total		
Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%	Freq.	Cum. Time	%
155	741:28	77.2	128	515:19	50.5	157	569:03	63.2	897	3839:55	62.1
59	216:02	22.5	118	494:41	48.5	80	330:57	36.8	567	2304:43	37.3
1	2.30	0.3	1	10:00	1.0	0	0:00	0.0	7	35:22	0.6
215	960:00	100.0	247	1029:00	100.0	237	900:00	100.0	1471	6180:00	100.0

Table 18

ANALYSIS OF VARIANCE COMPARISONS OF SCHOOL MEANS ON ACTIVITY DIMENSION ACTIVITY INITIATION

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%	Cum. Time	%
Teacher-Initiated	2714**	75.4**	3013**	83.8**	1296**	36.0**	2780**	77.1**	1819	50.4	2276**	63.1**
Child-Initiated	853**	23.6**	585**	16.1**	2271**	63.0**	810**	22.6**	1746	43.5	1324**	36.9**

Note -mDF = 1 and 74.

[1] Cumulative time is given in seconds.

*F 3.5, p .05.

**F 7.0, p .01.

Summary. Commonalities in activity dimension qualities among the six preschool settings studied included a heavy emphasis in all environments upon the resource of transition and a deemphasis upon block building and bodily maintenance activities of dressing, washing, toileting, and resting. The child behavior of readying was prominent in all settings, and nonactive and waiting behaviors were minimized. The main action relationship encouraged by activities in all environments was noncoordination of children's actions, and teachers in all settings seldom assumed the leadership pattern of participant. Otherwise, the six settings under study exhibited marked variation in activity qualities. The activity categories which best characterized each of the six environments are summarized in Table 19.

Activity Dimension Patterns

The classroom description to this point has considered activity units in terms of single dimensions. Now the dimensions are examined simultaneously in order to determine the typical patterns of activity unit qualities which occurred in each of the six schools.

A pattern is described by stating the six coded qualities of an activity unit in unison. For example, one activity unit was coded as follows:

Activity Dimensions	Pattern of Sample Activity Unit
Utilization of Resources	Arts and Crafts
Child Behavior	Drawing, Making
Group Size	Large Cluster
Coordination of Children's Actions	Not Coordinated
Teacher Leadership Pattern	Watcher, Helper
Activity Initiation	Teacher-Initiated

The number of unique activity patterns which could conceivably occur is the number of categories in activity dimension one multiplied by the number of categories in activity dimension two, and so on. There are 19,800 possibilities. This number is large enough to permit each activity unit which occurred to have a different pattern. However, out of a total of 1471 activity units observed in the six schools combined, only 332 different activity patterns occurred. The variety of activity patterns actually occurring in the classrooms, as compared with the number which could conceivably occur, is much reduced because activity units with identical codings are often repeated both within and across different settings. In addition, though logically distinct, the six activity dimensions proved to be highly interdependent in reality. For example, the book-related resources almost invariably involved a child behavior of watching, listening. Music was closely associated with vocal and instrumental expression, performing, acting out, and large-muscle activity. Eating almost always involved a group size of total class group or large cluster and was teacher-initiated.

Table 19

PROMINENT ACTIVITY DIMENSION QUALITIES IN THE SIX PRESCHOOL SETTINGS

	Franchise Day Care	Head Start	Montessori
Utilization of Resources	Transition(31%) *Media Experiences(20%) Book-related (11%) Playground(5%)	Transition(32%) *Eating(28%) Dramatic Play(9%) *Washing, Toileting(3%)	*Transition(35%) *Table Activities(21%) Arts and Crafts(9%) Book-related(8%) *Organized Group Activities(6%) *Animal and Plant Care (6%)
Child Behavior	*Watching, Listening(33%) Readying (16%) Wandering, Exploring (12%) Drawing, Making (8%) Performing, Acting Out (8%)	*Readying (28%) *Eating (28%) Performing, Acting Out(10%) *Vocal and Instrumental Expression(4%)	*Manipulating(29%) Readying (17%) *Wandering, Exploring (15%) Watching, Listening (13%)
Group Size	*Large Cluster (37%) Total Class (37%)	*Total Class (73%)	*Single Child(29%) *Pair (23%) *Large Cluster (19%)
Coordination of Children's Actions	Not Coordinated(90%)	Not Coordinated(90%)	Not Coordinated(86%)
Teacher Leadership Pattern	Active Leadership(35%) Watcher, Helper (33%) Not in Activity (31%)	*Watcher, Helper (48%) Active Leadership(37%)	*Not in Activity (53%)
Activity Initiation	Teacher-Initiated(75%)	Teacher-Initiated(84%)	Child-Initiated (63%)

*Indicates that category occurred for significantly more time in the

Table 19 continued

PROMINENT ACTIVITY DIMENSION QUALITIES IN THE
SIX PRESCHOOL SETTINGS

Community Day Care	Laboratory School I	Laboratory School II
Transition(20%) *Eating (17%) *Media Experiences (17%) Arts and Crafts (10%) Dramatic Play((9%) Book-related (8%)	Transition (30%) Dramatic Play 14%) Table Activities (14%) Book-related (14%) Playground Activities (11%)	Transition (32%) Dramatic Play (12%) Arts and Crafts (12%) Table Activities (11%) Book-related (8%)
*Watching, Listening (26%) *Eating (17%) *Readying (13%) Performing, Acting Out (11%) Manipulating(10%)	*Readying (19%) Manipulating (18%) Performing, Acting Out (15%) Large Muscle Activity (11%)	*Readying (23%) Manipulating (15%) Performing, Acting Out (15%) Watching, Listening (10%) Wandering, Exploring (6%)
Total Class (50%) Small Cluster (21%)	Total Class (42%) Small Cluster (26%)	Total Class (46%) Small Cluster (21%)
Not Coordinated (91%)	Not Coordinated (76%)	Not Coordinated (80%)
*Watcher, Helper (47%)	*Not in activity (38%) Active Leadership (32%)	Active Leadership (39%) *Watcher, Helper (39%)
Teacher-Initiated (77%)	Teacher-Initiated (51%) Child-Initiated (49%)	Teacher-Initiated (62%)

setting as compared with the remaining environments combined.

Considerable differences among the six settings were found in the activity pattern variety offered to children. As shown in table 20, the number of different activity patterns occurring in the environments ranged from 61 to 133. Head Start provided least variation; its activities encompassed 18.4 per cent of total number of different patterns occurring in the six settings combined. Montessori Nursery School encouraged the most variation in activity patterns, covering 40.1 per cent of the total number occurring in all settings. The remainder of the schools fell in an intermediate range, covering between 24 and 30 per cent of the total activity pattern variety presented to children in all six schools.

Of the 332 unique activity patterns occurring in all schools combined, 233 were exhibited in more than one setting. This finding suggests that there is much overlap and similarity among the six environments in the patterns of activity presented to children. However, the sheer number of patterns repeated in more than one school may not be as accurate an indicator of activity variety as the amount of time children spent in activities having different dimension patterns. When this was determined, both similar and unique qualities of the six settings were revealed.

In tables 21 through 26 are presented the activity unit patterns which accounted for over three per cent of the total observation time in each of the six settings. Several uniformities were found among the environments. In all but the Montessori Nursery School, a *readying transition of the total class, initiated and directed by the teacher*, was a prominent activity pattern. It accounted for more time than any other pattern in Laboratory Nursery School Classrooms No. 1 and 2, ranked second in importance in the Franchise Day Care Center and Head Start, and third in the Community Day Care Center. *Transitions in which single children wandered about and explored their environments* were noticable activities in all settings but Head Start, and the Montessori School distinguished itself by devoting most time to this latter pattern. Other conspicuous activity patterns appearing in more than one setting included: *a teacher-initiated and directed reading circle with clusters or total class groups of children*, appearing in the Franchise Day Care Center, Montessori and the two Laboratory Nursery School classrooms; and *child-initiated dramatic play, involving small clusters of children*, prominent in Head Start and the two Laboratory Nursery School classrooms.

Several disparities among the schools also appeared. In the Franchise and Community Day Care Centers, the only two settings in which television was part of the equipment, *media experiences, initiated by teachers in which total class,*

Table 20

ACTIVITY PATTERN VARIETY IN THE SIX PRESCHOOL SETTINGS

	Number of Different Activity Patterns Occurring	Per Cent of 332 Different Activity Patterns Occurring in Six Settings Combined
Head Start	61	18.4
Laboratory Nursery School Classroom Number 1	80	24.1
Community Day Care Center	92	27.7
Franchise Day Care Center	98	29.5
Laboratory Nursery School Classroom Number 2	101	30.4
Montessori Nursery School	133	40.1

Table 21

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN THE FRANCHISE DAY CARE CENTER

Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Media Experiences	Watching, Listening	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	19	156" 57'	14.5
Transition	Readying	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	32	113" 07'	10.5
Book-Related	Watching, Listening	Large Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	14	87" 50'	8.1
Transition	Wandering, Exploring	Single Child	Not Coordinated	Not in Activity	Child-Initiated	23	75" 35'	6.9
Arts and Crafts	Drawing, Making	Large Cluster	Not Coordinated	Watcher, Helper	Teacher-Initiated	9	62" 21'	5.8
Media Experiences	Watching, Listening	Total Class Group	Not Coordinated	Not in Activity	Teacher-Initiated	8	47" 22'	4.9
					TOTAL	105	543" 12'	50.7

Table 22

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN HEAD START

Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Eating	Eating	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	33	232" 55'	27.7
Transition	Readying	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	39	151" 58'	18.1
Transition	Readying	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	12	56" 06'	6.7
Dramatic Play	Performing, Acting Out	Small Cluster	Not Coordinated	Not in Activity	Child-Initiated	5	41" 25'	4.9
				TOTAL		89	482" 24'	57.4

Table 23

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN THE MONTESSORI NURSERY SCHOOL

Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Transition	Wandering, Exploring	Single Child	Not Coordinated	Not in Activity	Child-Initiated	46	171" 26'	12.4
Table Activities	Manipulating	Single Child	Not Coordinated	Not in Activity	Child-Initiated	14	70" 40'	5.1
Table Activities	Manipulating	Pair	Not Coordinated	Not in Activity	Child-Initiated	16	50" 38'	3.7
Transition	Readying	Large Cluster	Not Coordinated	Not in Activity	Child-Initiated	4	31" 12'	2.3
Book Related	Watching, Listening	Large Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	8	43" 35'	3.7
					TOTAL	88	367" 30'	27.2

Table 24

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN THE COMMUNITY DAY CARE CENTER

Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Eating	Eating	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	23	160" 21'	16.7
Media Experiences	Watching, Listening	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	17	127" 28'	13.3
Transition	Readying	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	23	67" 26'	7.0
Transition	Wandering, Exploring	Single Child	Not Coordinated	Not in Activity	Child-Initiated	11	36" 25'	3.8
Arts and Crafts	Drawing, Making	Small Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	5	29" 11'	3.0
					TOTAL	79	420" 51'	43.8

Table 25

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN LABORATORY NURSERY SCHOOL CLASSROOM NUMBER I

Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Transition	Readying	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	32	117" 04'	11.5
Book Related	Watching, Listening	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	18	86" 18'	8.5
Transition	Wandering, Exploring	Single Child	Not Coordinated	Not in Activity	Child-Initiated	28	77" 25'	7.6
Dramatic Play	Performing Acting out	Small Cluster	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	11	63" 51'	6.3
Playground Activities	Large Muscle Activity	Small Cluster	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	9	55" 02'	5.4
Transition	Readying	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	12	50" 41'	5.0
Eating	Eating	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	13	42" 39'	4.2
Table Activities	Manipulating	Small Cluster	Not Coordinated	Watcher, Helper	Child-Initiated	4	35" 05'	3.4
					TOTAL	127	528" 05'	51.9

Table 26

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN LABORATORY NURSERY SCHOOL CLASSROOM NUMBER II

Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Transition	Readying	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	38	137" 37'	15.3
Transition	Wandering, Exploring	Single Child	Not Coordinated	Not in Activity	Child-Initiated	15	42" 02'	4.7
Dramatic Play	Performing, Acting Out	Small Cluster	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	6	38" 32'	4.3
Transition	Readying	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	10	36" 03'	4.0
Eating	Eating	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	13	35" 52'	4.0
Resting	Nonactive	Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	7	32" 11'	3.6
Arts and Crafts	Drawing, Making	Large Cluster	Not Coordinated	Watcher, Helper	Child-Initiated	3	28" 34'	3.8
Book Related	Watching, Listening	Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	8	28" 27'	3.7
					TOTAL	100	379" 18'	43.4

groups of children, watched the set, consumed a noticable amount of time, 19 and 13 per cent respectively in the two schools. Unlike the other settings, Head Start and the Community Day Care Center devoted most time to the eating situation where total class groups of children were gathered around tables at meal time by teachers who assisted them. The Montessori Nursery School was exceptional in devoting much time to child-initiated, manipulative table activities involving single children or pairs of children.

These most representative activity patterns presented in tables 21 through 26 account for from 43 to 57 per cent of the total activity time in all schools except Montessori where they account for only 27.2 per cent of the time. The fact that so much activity time is unaccounted for accentuates the fact that in all classrooms, many additional activity patterns did occur and suggests the conclusion that all environments offered great activity variety to children.

An additional activity pattern analyses, eliminating dimensions of resources and child behavior, shows that a substantially greater percentage of observation time (from 53 to 80 per cent) is accounted for by combinations of the remaining four dimensions of group size, coordination of children's actions, teacher leadership pattern and activity initiation (see tables 27 through 32). From this point of view, variety in activity arrangements in the six environments may not be as great as originally presumed to be the case. This is particularly true of Head Start (see table 28), where children spent 68 per cent of their activity time in total class grouping arrangements in which the teacher initiated and either actively led or watched and helped with the activity. Though the Franchise Day Care Center offered greater variety to children in the patterning of the last four activity dimensions, it was similar to Head Start in that total class or large cluster activities which were teacher-initiated and either minimally or actively teacher-directed consumed 60 per cent of the activity time. This teacher initiated and structured large group activity was also represented in the other four settings, but not as prominently: in the Community Day Care Center, 46 per cent of the time; in Laboratory Nursery School Classroom No. 2, 45 per cent; in Laboratory Nursery School Classroom No. 1, 36 per cent; and least of all in the Montessori Nursery School, 23 per cent. The small cluster activity, independent of the teacher and child-initiated, was also represented in all six settings. It was most evident in Laboratory Nursery School Classroom No. 1, consuming 12 per cent of the activity time, and occupied 3 to 8 per cent of the time in the other settings.

The Montessori environment was again distinguished from the other settings by devoting the most activity time to single

Table 27

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN THE FRANCHISE DAY CARE CENTER

Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Large Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	47	194" 20'	18.0
Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	21	163" 25'	15.1
Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	36	133" 06'	12.3
Large Cluster	Not Coordinated	Watcher, Helper	Teacher-Initiated	20	110" 34'	10.2
Single Child	Not Coordinated	Not in Activity	Child-Initiated	29	83" 02'	7.7
Total Class	Not Coordinated	Not in Activity	Teacher-Initiated	14	61" 02'	5.7
Large Cluster	Coordinated/ Simultaneous	Active Leadership	Teacher-Initiated	12	41" 27'	3.8
Small Cluster	Not Coordinated	Not in Activity	Child-Initiated	8	35" 27'	3.3
			TOTAL	187	822" 23'	79.9

Table 28

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN HEAD START

Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	55	341" 24'	40.6
Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	54	228" 14'	27.2
Small Cluster	Not Coordinated	Not in Activity	Child-Initiated	6	51" 25'	6.1
			TOTAL	115	621" 03'	73.9

Table 29

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN THE MONTESSORI NURSERY SCHOOL

Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Single Child	Not Coordinated	Not in Activity	Child-Initiated	90	333" 31'	24.2
Pair	Not Coordinated	Not in Activity	Child-Initiated	37	158" 57'	11.5
Large Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	28	109" 37'	7.9
Small Cluster	Not Coordinated	Not in Activity	Child-Initiated	27	97" 06'	7.0
Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	15	79" 26'	5.8
Pair	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	13	72" 12'	5.2
Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	15	68" 36'	5.0
Large Cluster	Not Coordinated	Watcher, Helper	Teacher-Initiated	19	63" 19'	4.6
Single Child	Not Coordinated	Watcher, Helper	Child-Initiated	8	45" 11'	3.3
			TOTAL	252	1027" 56'	74.5

Table 30

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN THE COMMUNITY DAY CARE CENTER

Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	51	377" 20'	35.1
Small Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	20	94" 14'	9.8
Single Child	Not Coordinated	Not in Activity	Child-Initiated	22	86" 46'	9.0
Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	27	81" 49'	8.5
Large Cluster	Not Coordinated	Watcher, Helper	Teacher-Initiated	10	56" 04'	5.8
Large Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	14	50" 24'	5.3
Total Class	Not Coordinated	Not in Activity	Teacher-Initiated	5	34" 43'	3.6
Small Cluster	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	6	31" 03'	3.2
			TOTAL	155	812" 23'	80.3

Table 31

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN LABORATORY NURSERY SCHOOL CLASSROOM NUMBER I

Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	56	232" 06'	22.8
Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	34	136" 33'	13.4
Single Child	Not Coordinated	Not in Activity	Child-Initiated	45	122" 02'	12.0
Small Cluster	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	20	118" 53'	11.7
Small Cluster	Not Coordinated	Watcner, Helper	Child-Initiated	9	73" 28'	7.2
Pair	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	15	61" 21'	6.0
			TOTAL	179	744" 23'	73.1

Table 32

ACTIVITY UNIT PATTERNS ACCOUNTING FOR MORE THAN THREE PER CENT OF TOTAL OBSERVATION TIME IN LABORATORY NURSERY SCHOOL CLASSROOM NUMBER II

Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Number of Units	Cumulative Time in Minutes and Seconds	Percentage of Time
Total Class	Not Coordinated	Active Leadership	Teacher-Initiated	54	201" 47'	22.4
Total Class	Not Coordinated	Watcher, Helper	Teacher-Initiated	40	141" 16'	15.7
Single Child	Not Coordinated	Not in Activity	Child-Initiated	22	62" 56'	7.0
Pair	Not Coordinated	Watcher, Helper	Child-Initiated	22	62" 56'	7.0
Small Cluster	Coordinated/ Reciprocal	Not in Activity	Child-Initiated	7	41" 06'	4.6
Total Class	Coordinated/ Simultaneous	Active Leadership	Teacher-Initiated	12	36" 47'	4.1
Small Cluster	Not Coordinated	Active Leadership	Teacher-Initiated	5	28" 57'	3.2
Small Cluster	Not Coordinated	Not in Activity	Child-Initiated	7	28" 48'	3.2
Large Cluster	Not Coordinated	Watcher, Helper	Child-Initiated	3	28" 34'	3.2
Single Child	Not Coordinated	Watcher, Helper	Teacher-Initiated	6	28" 11'	3.1
		TOTAL		178	661" 18'	73.5

children or pairs of children in independent activities (35 per cent). This arrangement was found 12 per cent or less of the time in the other five environments.

Summary. Activity unit patterns based on the six activity dimensions indicated that there were wide differences among the six settings in the activity pattern variety experienced by the children, ranging from a low in Head Start to a high in the Montessori Nursery School. Activity dimension patterns prominently represented in several settings were (1) a readying transition of the total class, initiated and directed by the teacher; (2) transitions in which single children wandered about and explored their environments; (3) a teacher-initiated reading circle with clusters or total class groups of children; and (4) child-initiated dramatic play involving small clusters of children. There were also marked differences among the environments in conspicuous activity patterns.

When only the dimensions of group size, coordination of children's actions, teacher leadership pattern, and activity initiation were considered, activity arrangements in the six settings appeared to present much less variety to children than was indicated by the analysis considering all six dimensions. The teacher-initiated and structured large group activity and the small cluster activity, independent of the teacher and child initiated, were represented in all settings. Otherwise, differences among the settings were again revealed.

Teachers' Activity Purposes and Classroom Observations: The Interview Results

The match between rankings of teachers' ideal activity desires and the actual occurrence of activity qualities in their classrooms is given for each of the activity dimensions in tables 33 through 38.

The interviews revealed several commonalities among teachers' responses. Although all teachers ranked the transition category of utilization of resources low, it was first in actual occurrence in all settings. In general, teachers also ranked bodily maintenance activities as resources which were not preferred, except for eating which was assigned intermediate and high ranks. On the child behavior dimension, the eating category tended not to be ranked high by teachers. In addition, passive behaviors of nonactive and waiting were not preferred. On the last activity dimension, child-initiated activities were designated as preferrable over teacher-initiated activities by five of the six teachers. Otherwise, the interview responses varied among the six respondents.

Table 33

TEACHER-PREFERRED AND ACTUALLY OBSERVED RANK ORDERS OF ACTIVITY QUALITIES ON UTILIZATION OF RESOURCES

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed
Book- Related	3	3	1	7	2	4	1	6	4	4	5	5
Block Building	7	12	7	10	10	11	13	13	2	9	6	10
Table Activities	8	9	2	4	1	2	5	7	7	2	8	4
Dramatic Play	4	7	9	3	3	8	9	5	1	3	7	2
Arts and Crafts	2	4	4	7	7	3	3	4	6	6	1	3
Organized Group Activities	1	11	13	6	5	6	4	11	15	15	9	13
Music	6	8	5	5	6	10	2	9	5	10	4	6
Animal and Plant Care	9	14	8	15	4	5	12	14	9	14	2	14
Playground Activities	5	6	3	13	8	13	8	8	3	5	3	9
Media Experiences	11	2	10	12	9	14	10	3	13	13	12	14

Table 33 continued

Bodily Maintenance												
Eating	15	5	6	2	14	7	7	2	11	7	10	7
Resting	13	10	15	11	15	15	6	10	14	8	13	8
Dressing	12	13	11	14	11	9	15	15	10	11	15	12
Washing, Toileting	14	15	12	9	12	12	14	12	12	12	11	11
Transition	10	1	14	1	13	1	11	1	8	1	14	1
Rank Order Correlation	.22		.04		.45		.39		.59		.14	

Table 34

TEACHER-PREFERRED AND ACTUALLY OBSERVED RANK ORDERS OF ACTIVITY QUALITIES ON CHILD BEHAVIOR

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed
Passive												
Nonactive	9	10	10	9	11	10	11	10	11	9	10	8
Waiting	10	9	11	11	9	8	9	9	10	10	11	11
Watching, Listening	1	1	4	4	6	4	1	1	5	4	2	4
Active												
Readying	5	2	9	1	8	2	7	3	7	1	6	1
Wandering, Exploring	3	3	3	10	7	3	10	8	6	6	1	6
Eating	11	6	8	2	10	9	8	2	9	8	9	7
Manipulating	2	8	1	5	3	1	6	5	4	2	4	2
Drawing, Making	7	5	2	8	4	5	4	6	3	7	3	5
Vocal and Instrumental Expression	8	11	6	7	5	11	2	11	8	11	7	10
Performing, Acting Out	6	4	7	3	1	7	3	4	1	3	8	3
Large Muscle Act.	4	7	5	6	2	6	5	7	2	5	5	9
Rank Order Correlation	.60		.00		.31		.48		.70		.46	

Table 35

TEACHER-PREFERRED AND ACTUALLY OBSERVED RANK ORDERS OF ACTIVITY QUALITIES ON GROUP SIZE

	Francnise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed
Total Class Group	5	2	2	1	5	5	3	1	5	1	5	1
Large Cluster	4	1	3	2	4	3	1	3	4	5	3	5
Small Cluster	1	4	1	3	3	4	4	2	1	2	2	2
Pair	3	5	4	5	2	2	5	5	2	4	1	4
Single Cnild	2	3	5	4	1	1	2	4	3	3	4	3
Rank Order Correlation	-.60		.60		.90		.20		-.10		-.50	

Table 36

TEACHER-PREFERRED AND ACTUALLY OBSERVED RANK ORDERS OF ACTIVITY QUALITIES ON COORDINATION OF CHILDREN'S ACTIONS

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed
Coordinated/ Simultaneous	2	2	3	3	2	3	2	3	3	3	3	3
Coordinated/ Reciprocal	1	3	2	2	3	2	1	2	1	2	2	2
Not Coordinated	3	1	1	1	1	1	3	1	2	1	1	1
Rank Order Correlation	-1.00		+1.00		.50		.50		.50		1.00	

Table 37

TEACHER-PREFERRED AND ACTUALLY OBSERVED RANK ORDERS OF ACTIVITY QUALITIES ON TEACHER LEADERSHIP PATTERN

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed
Not in Activity	4	3	2	3	1	1	2	3	3	1	1	3
Minimal Leadership												
Watcher, helper	1	2	1	1	2	2	3	1	2	3	2	2
Participator	2	4	3	4	3	4	1	4	1	4	3	4
Active Leadership	3	1	4	2	4	3	4	2	4	2	4	1
Rank Order Correlation	0.00		.40		.80		-.80		-.80		-.60	

Table 38

TEACHER-PREFERRED AND ACTUALLY OBSERVED RANK ORDERS OF ACTIVITY QUALITIES ON ACTIVITY INITIATION

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II	
	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed	Teacher Preferred	Observed
Teacher-Initiated	1	1	2	1	2	2	2	1	2	1	2	1
Child-Initiated	2	2	1	2	1	1	1	2	1	2	1	2
Rank Order Correlation		+1.00		-1.00		+1.00		-1.00		-1.00		-1.00

Although some teacher preferences tended to be consistent with the observations, there were also marked discrepancies between expectations and actual outcomes. These disparities were most evident on activity dimensions of utilization of resources, group size, and activity initiation. They point to the value of classroom observations in helping to close this gap by making teachers aware of the extent to which their plans are, or are not, realized in actual practice.

Montessori Nursery School. The Montessori Nursery School was the setting in which the teacher's activity purposes were best translated into classroom practice. Correlations between observed occurrences of activity qualities and Mrs. M.'s stated preferences were all positive and high as compared with the other environments. Mrs. M.'s rankings correlated less well with actual time spent in activities on dimensions of utilization of resources and child behavior as compared with the remaining four dimensions, but this findings is understandable in view of the fact that teacher initiation and direction of activities were minimized in the Montessori School and, therefore, allocation of time to activity resources and child behavior were, to a greater extent than in any other environment, under control of the children.

The fact that Mrs. M.'s preferences on the first two activity dimensions correlated as well as they did with what actually occurred in the setting indicates that Mrs. M. successfully controlled the curricular input of children's activities not by directly structuring and selecting, but by carefully planning and arranging the material world of the nursery school. Her rationale for preferring some activity qualities to others was consistent with the Montessori philosophy. The fact that she had such a clear rationale in mind may also have contributed to the extent to which her purposes were translated into classroom practice.

The theme which ran through Mrs. M.'s rationale for activity preferences was encouragement of self-reliance and individuality among her children. On utilization of resources, Mrs. M. designated table activities as the one to which she would like to allocate most time, because, she stated, "they lead to more individuality in activities, and children have to think." Reading was ranked second. Mrs. M. said, "We read a book in class every day, but I like the children to go to the reading corner and pick up a book by themselves because this leads to independence." Mrs. M. ranked eating and resting low in preference. She stated, "Eating is not important here because the children do well in it. Resting is not important because the children are only at school three hours." These high and low resource choices showed similar rankings with respect to time actually allocated to them in the classroom.

On the child behavior dimension, Mrs. M. ranked performing, acting out and large muscle activity highest, although children spent only a moderate amount of time with them in actuality. They were important "because its through these activities that a child learns a sense of his own body's performance and acts mostly on his own." Eating and nonactive behaviors were low in actual occurrence and also ranked lowest by Mrs. M. because "they're essentially activities the child isn't interested in spending much time on but wants to get through."

Mrs. M. stressed independence again when she ranked the activity qualities of group size, teacher leadership pattern, and activity initiation. On these dimensions, her high and low choices were also fairly consistent with actual outcomes. She preferred to allocate most time to the single child grouping arrangement in order to "develop the child's individuality and foster self-confidence." The total class group was ranked lowest because "its not very effective for learning. You can't get twenty-three children interested in the same activity." She favored noncoordination of children's actions in activities, again stating that she "values independence more." On teacher leadership pattern and activity initiation, the teacher not in activity and child-initiated modes were ranked highest and active leadership and teacher-initiated modes were ranked lowest because "learning is a child's act, and once I can show him enough, there is no reason for me to be involved. The importance of the teacher should be played down. The child taking care of his own education is what I want to foster."

Laboratory Nursery School Classroom No. 1. Except for dimensions of group size, teacher leadership pattern, and activity initiation, the activity purposes of Mrs. A. and the actual events of the classroom revealed a close match. Mrs. A's ideals and classroom events on dimensions of resources and child behavior were more closely related to one another than those of any other teacher. Like the Montessori School, this close association between expectations and outcomes is surprising because much time in this setting was spent in child-initiated pursuits with the teacher not in the activity. Therefore, Mrs. A. did not directly control children's activity resources and behaviors. The close relationship between purposes and classroom events on these two dimensions may best be explained by the fact that like Mrs. M., Mrs. A. demonstrated a relatively well-defined philosophy of teaching, stemming from the open classroom approach, which she used as a guide to activity planning in the classroom. This philosophy stressed an intimate knowledge of what children naturally do and emphasized making available activity possibilities in order to fully stimulate each individual child. Mrs. A's belief in the importance of the teacher observing her children to find out how they actually spend their time may have contributed to the realization of her activity resource and child behavior goals. Mrs. A. stated, "I think I'm working toward (an open classroom). I think its much more open than it was before. My chief concern is to stimulate the children intellectually to the very fullest, but not to push them."

Mrs. A. identified dramatic play, which was high in actual occurrence, and block building, which occurred for a moderate amount of time, as activity resources which were most important in her classroom. She stated, "These are what children naturally do. It comes from them." Organized group activities, to which least time was allocated, were least preferred by Mrs. A. because "its a teacher-enforced thing. I do this when (the children) indicate they want to, but its never the whole group that wants to." Again, because "the children naturally go to them," child behaviors of performing, acting out and large muscle activity were preferred by Mrs. A. and were also relatively frequent in actual occurrence in her classroom. Waiting and nonactive behaviors, which ranked comparatively low in allocated time, were least desirable because of the necessity of adult enforcement.

On the activity dimension of group size, Mrs. A. chose the small cluster arrangement, second in actual time of occurrence, as most important because "as I visually picture the room, there are four or five children together. Its a naturally occurring thing." Though consuming more time than any other grouping arrangement in this classroom, the total class group was least attractive to Mrs. A.

Reciprocal coordination of children's actions in activities was designated as most important to Mrs. A. because "I like to see (the children) work together." Of the three action coordination possibilities, reciprocal coordination was second in actual occurence but consumed more time in this setting than in any other environment. Simultaneous coordination consumed least time and was least liked by Mrs. A. "When this happens," she said, "its usually my choice, but I don't like this as well because it requires the whole group. Its hard to keep them interested."

On dimensions of teacher leadership pattern and activity initiation, Mrs. A's activity purposes were not met in actual practice. She preferred the teacher leadership pattern of activity participant because "I find out a great deal about the children by being there with them," but she spent least time in this role. Although second in actual occurrence, active leadership was least desirable because it meant a group activity which might not sustain the children's attention. However, Mrs. A. acknowledged that she did frequently use the active leadership role, but not for too long a time, because it facilitated the "closeness of being together. This is important because we do live together in a group and have to learn to be part of and to participate in a group." Though slightly more time was spent in teacher-initiated than child-initiated activities in Laboratory Nursery School Classroom No. 1, Mrs. A. preferred child-initiated activities, again pointing to the importance of children's own interests in fostering learning.

Laboratory Nursery School Classroom No. 2. Like Mrs. A of Laboratory Classroom No. 1, the rationale for activity preferences of Mrs. B. of Classroom No. 2 stemmed from the open classroom concept of education. However this philosophy appeared to be less well formulated by Mrs. B. than by Mrs. A., a finding which may have contributed to the fact that on dimensions of resources and child behavior, Mrs. B's activity preferences did not show the close relationship with outcomes demonstrated by Mrs. A. Mrs. B's experience with preschool education was more limited than Mrs. A's. In addition, her previous exposure to nursery school education emphasized a highly teacher-structured, academically oriented curriculum; the transition to more open environment was an abrupt and difficult change for Mrs. B.

Mrs. B's resource preferences showed a negligible relationship with classroom events. She ranked arts and crafts, an activity consuming much time in actuality, first because "the children really enjoy the materials. They express themselves in many ways. It develops self-confidence. Its all so natural and spontaneous." Second in importance was animal and plant care, but this resource never occurred in her classroom. Although it was in actuality the most prominent activity, Mrs. B. found transition to be least desirable because, she stated, "I feel strongly about not having (the children) do things they don't like." Resting, to which little time was devoted in the classroom, was also least preferred by Mrs. B. because "just to have them lie down is a fruitless battle. Its better for them to do something else while they rest, such as read."

Mrs. B's purposes were best related to classroom occurrences on the child behavior dimension. She favored wandering, exploring first, and it was observed for a moderate amount of time in the classroom. Second in preference was watching, listening, which consumed a large portion of time in the setting. She explained, "I feel these two behaviors are important because they are ways that children naturally learn, where they can be relaxed and do what they want to do.

adults aren't on top of them." Nonactive and waiting were both least preferred and infrequent in occurrence. Mrs. B. stated, "The children don't seem to need (the nonactive behavior). Sometimes I do this thinking it will calm them down, but its more for me. I don't feel waiting accomplishes anything for the child."

Expectations and outcomes were negatively correlated on the dimension of group size. Mrs. B. identified the pair and small cluster child grouping arrangements as the ones to which she would like to allocate most classroom time. They ranked fourth and second, respectively, in time actually devoted to them. She stated, "I like to see children do things in twos or threes. Its more natural. The child is happier in this situation. Although she stated that the total class group arrangement was least desirable, it occurred most often in her classroom. She stated, "The total class in an activity is not natural. It is imposed upon (the children) by the teacher."

Mrs. B's desires for action coordination showed a perfect correlation with classroom events. She preferred noncoordination of children's actions because "the child by himself can do what he wants. This leaves the child the most choice." She stated that simultaneous action coordination should be a very small part of the day because the children "do not learn as much this way."

Mrs. B's purposes showed a high negative correlation with activity occurrences in the classroom on both teacher leadership pattern and activity initiation. Although she ranked teacher not in activity highest because "the classroom should be the child's world," this pattern actually consumed only a moderate amount of time. Active leadership was ranked least desirable but occurred for more time than any other category. Mrs. B. preferred child-initiated to teacher-initiated activities, but teacher-initiation was decidedly more prominent in the classroom.

Community Day Care Center. Although a comparatively close relationship between Mrs. C's stated preferences and actual activity outcomes was obtained for utilization of resources, child behavior, coordination of children's actions, and teacher leadership pattern, sizable discrepancies occurred on group size and activity initiation.

The interview with Mrs. C. revealed that, unlike Montessori and Laboratory Nursery School Classroom No. 1, her activity preferences were not supported by an elaborated preschool philosophy. This may have contributed to several apparent contradictions in her rationale for preferring some activity qualities to others. Mrs. C's explanations were largely based upon what she believed to be needed and enjoyed by the kind of children which attended her center: children with underprivileged backgrounds, many with only one parent in the home. She stressed that the Day Care Center should not be school-like. Her goal was to foster a home-like atmosphere for the children where "they can learn what they want to learn, be happy at learning, instead of reading, writing, arithmetic, and geography."

On utilization of resources, Mrs. C. ranked reading and music highest, activities which occurred for a moderate amount of time in the classroom. The arts and crafts category, relatively high in actual occurrence, was ranked third. She explained, "Reading is important because it lets a child know what you want him to do and learn. It helps with other activities because it explains what is expected of the children. The children love music. For this type of child, it reaches them so quickly. Arts and crafts is important because the children like to make and do things." Mrs. C. ranked block building, washing and dressing lowest, resources which were also very low in occurrence in the setting. She explained, "(Block building) takes such little thought. (The children) don't have the span of attention to build something important. Its more for the older children. I don't have to worry about (washing and dressing). They come along with everyday life, as a natural thing to do. We don't have to work very long on these because (the children) teach each other, and they learn fast."

Among child behaviors, Mrs. C. ranked watching, listening as most important, because "first the child must understand what he's going to do before he tries himself. I want them to listen to the teacher to know." In an agreement with teacher expectations, more time was devoted to watching, listening in this setting than to any other child behavior. Although low in actual occurrence, Mrs. C. ranked vocal and instrumental expression second in importance. Performing, acting out was ranked third; in actuality, it ranked fourth in allocated time. These behaviors were important to Mrs. C. because they were enjoyed by the children.

The large cluster grouping arrangement, which was intermediate in actual occurrence, was ranked highest by Mrs. C. because "there are more ideas. The children are stimulated by each other." Ranked least important and lowest in actual occurrence was the pair grouping arrangement. Explained Mrs. C., "This should occur only when there is something special, to be learned in detail."

Reciprocal coordination of childrens actions, ranking second in actual occurrence and consuming relatively little time in this setting, was identified as most important to Mrs. C. She stated, "The children learn so much from each other, how to take turns, how to be a leader." Although much time was allocated to the category of noncoordination of children's actions, Mrs. C. ranked it lowest. "The children are not old enough to be so independent," she stated. "Working with and learning from each other comes first."

Mrs. C.'s rankings on teacher leadership pattern and activity initiation showed high negative correlations with classroom occurrences. Though the teacher seemed to play an important part in the rationale for her choices on other dimensions, Mrs. C. ranked the category of teacher not in activity highest. In reality, it ranked third in occurrence in the classroom. Active leadership was least preferred but ranked second in terms of the teacher's actual relationship in activities. The teacher not in the activity was preferred by Mrs. C. because "the only way teachers can learn about a child is to observe him. It is important to learn about children's likes, dislikes, and temperaments." Active leadership was ranked low because "I don't want someone on top of the children. This is especially important for little children," explained Mrs. C. Though child-initiated activities were allocated much less time than teacher-initiated activities in this environment, Mrs. C. preferred child-initiated activities because "the children should have more freedom."

Franchise Day Care Center. Mrs. F. of the Franchise Day Care Center best accomplished her activity goals in terms of dimensions of child behavior and activity initiation. However, on group size and coordination of children's actions, correlations between ideal rankings and actual outcomes were strongly negative. Low positive and zero-order correlations were found for utilization of resources and teacher leadership pattern, respectively.

Much of Mrs. F's justification for activity purposes centered upon what she believed would best prepare the children for future learning and what worked best in her particular situation. The fact that Mrs. F's goals were not well translated into classroom practice may be related to the fact that the environment accommodated seventy children or more at one time; therefore activities were often hard to control. Mrs. F. expressed this thought herself when she stated, "We have too many children. There are always some who disturb the others. We have to take the maximum because this is a business."

Mrs. F. ranked organized group activities as most important, although they seldom occurred in this environment. She stated, "With so many children, organized group activities work out better. Otherwise, there's chaos." Arts and crafts were ranked second and consumed much time in actuality. "The children love this kind of activity and are creative. They should be encouraged," Mrs. F. explained. Reading ranked third, both in actuality and in importance to Mrs. F. "Whether the children are read to or are involved in reading readiness, this is important for future school experience." Ranked lowest by Mrs. F. were bodily maintenance activities of washing, which almost never occurred, and eating, which consumed an intermediate amount of time. Mrs. F. said, "These aren't things we have to spend as much time on. You can use eating to teach manners, but there are better ways to use time. We have lessons in keeping clean, so we shouldn't have to spend much time on washing."

Mrs. F's expectations and outcomes were most congruent on the child behavior dimension. Watching, listening consumed most time and was ranked highest by Mrs. F. because "if we can get this across to children, it will help with their whole round of learning later on." Manipulating, allocated only a moderate amount of time in actuality, was ranked second by Mrs. F. because "it encourages hand and eye coordination." Passive behaviors of nonactive and waiting seldom occurred and were ranked low by Mrs. F. She stated, "We're striving to encourage the children to do as much as possible."

Though Mrs. F. most preferred the small cluster group size and least favored the total class group, in reality, the rankings of these two grouping arrangements were opposite to her stated preferences. She explained, "The children learn from one another, and the small cluster allows us to give them individual attention. With the total class group, there are too many children. Its an almost impossible situation."

Reciprocal coordination of children's actions was most desirable to Mrs. F. and noncoordination of actions least desirable, but again, the reverse was true in terms of classroom practice. She said, "I like to have as much interaction among the children as possible. It encourages more thinking."

On teacher leadership pattern, Mrs. F's expectations and outcomes showed a correlation of zero with one another. Although she identified the watcher-helper role as most important and the teacher not in activity as least desirable, these patterns ranked second and third in actuality and consumed approximately the same intermediate amount of time. The watcher-helper pattern was ranked highest because "the more we can encourage children to do on their own, the more they learn." The not in activity pattern was ranked lowest because "this is to the teacher's disadvantage. The teachers have to be somewhat in the activity so they see what the children want to do."

The activity initiation dimension revealed a perfect correlation between expectations and classroom practice. Much more time was devoted to teacher-initiated than to child-initiated activities. Mrs. F. explained, "As a teacher, you're more aware of possibilities. A child's knowledge is limited. Our job is to stimulate curiosity and provide areas of knowledge for children to explore.

Head Start. The interview with Mrs. H. revealed that she was seriously dissatisfied with the activity accomplishments in her classroom. She explained, "I was assigned an assistant whom I could not depend on. I did many things that now I would not do. I would like the situation in the classroom to be entirely different." Although the interview suggested that Mrs. H. would have preferred a classroom environment which was less teacher-structured and more child-directed, the interview responses did not reveal a well specified alternative rationale which Mrs. H. would have liked to implement.

Mrs. H. identified reading and table activities as most desirable resources, although they occurred for only a moderate amount of time in her classroom. She stated, "Reading belongs in any type of educational program. Table activities require the use of small muscles and a thinking process. Its a good type of quiet learning which is flexible and individualized." Transition, which consumed more time than any other resource, and resting, which consumed very little time, were ranked lowest in preference. Mrs. H. explained, "Transition seems to waste too much time. Since the school day is short, (the children) can rest at home. This shouldn't take the time it takes for the activity itself. It should be done as quickly as possible."

Child behaviors of manipulating and drawing, occurring for a moderate amount of time in actuality, were ranked highest by Mrs. H. because "I like to see the children touch and learn to work with objects. Drawing provides a time for them to release feelings and emotions, a time to express." Passive behaviors of nonactive and waiting were ranked lowest by Mrs. H. and were also low in occurrence. "You lose time and nothing is accomplished when the children wait", stated Mrs. H. "There's not much need for the children to be nonactive on a class basis; maybe there is on an individual basis."

The small cluster grouping arrangement, which was moderate in allocated time in the classroom, was preferred by Mrs. H. because "its large enough so that the teacher can get a variety of things going, but small enough so you can get each child to participate." The single child arrangement, low in occurrence, was also ranked lowest. Mrs. H. said, "There is a time for a child to be by himself, but its important for him to socialize with other children."

Mrs. H's preferences for coordination of children's actions showed a perfect correlation with classroom outcomes. She ranked not coordinated highest because "at this age, they're still very individualistic. They need to feel a sense of accomplishment which they can obtain this way. She ranked simultaneous coordination lowest because "it tends to be more stifling and inhibited."

The watcher-helper teacher leadership pattern, the role consuming most time in the Head Start classroom, was also ranked highest by Mrs. H. because "the activity should come from the children, but the teacher should be there when help is asked." Active leadership, which occurred for much time in actuality was ranked lowest by Mrs. H. because "when this is followed, you lose what the children want to be doing. You do what the teacher has in mind."

Mrs. H. identified child-initiation of activities as more important than teacher-initiation "because children's interests are at their best." However, child-initiated activities occupied less time in this classroom than in any other setting.

Summary. The match between rankings of teachers' ideal activity desires and the actual occurrence of activity qualities in their classrooms was closest for activity dimensions of child behavior, coordination of children's actions, and teacher leadership pattern and most disparate for utilization of resources, group size and activity initiation. Teachers tended to rank transition and bodily maintenance resources, passive behaviors of nonactive and waiting, and teacher initiated activities as low. Mrs. M's activity desires for the Montessori School were best implemented in terms of classroom practice, and Mrs. H's activity purposes for Head Start were least well implemented. The other four teachers fell in between these two schools in successful realization of activity goals. The data, though limited, suggest that a well defined preschool philosophy is a necessary prerequisite for bridging the gap between goals and practice. Four of the six teachers interviewed did not reveal a consistent, elaborated theory of preschool teaching in their interview.

ANALYSES OF SOCIAL INTERACTION

In this section, the incidence of social interaction qualities among teachers and preschool children in the six settings under investigation are reported. The specific questions answered by analysis of association unit, method, and response category systems are as follows:

1. How did the frequency of communications from teacher to child, child to child, and child to teacher compare with one another? Were there differences in communications according to agent and target among the six schools?

2. What association unit goals were prominent in communications from teachers to children, children to teachers, and children to children? How did the type of goal differ according to agent and target of the communication? What variations appeared among the six preschool environments?

3. How did specificity of the communication vary according to agent and target of the association unit? Did some preschool environments emphasize the single specificity mode and others the multiple specificity mode?

4. Did coerciveness of methods differ according to agent and target of the communication? What variation appeared among the six preschool settings?

5. Did the verbal versus nonverbal quality of methods differ according to whether the influence attempt was initiated by teachers to children, children to teachers, or children to children? What differences in verbalness of response were evident among the six environments under investigation?

6. Did response congruence vary according to agent and target of the communication? What differences appeared among the six preschool settings?

7. Did the verbal or nonverbal quality of responses differ according to whether communications were initiated by teachers to children, children to teachers, or children to children? How did the six environments differ from one another in verbalness of response?

8. How were the qualities of responses contingent upon the kind of method which provoked them?

9. How were method and response qualities contingent upon the goals of association units in which they were embedded?

Questions one through seven were answered by computing frequency and percentage distributions of association unit, method, and response properties separately by agent and target and by school. To examine setting differences, distributions were computed for each individual child and the scores entered into the analysis of variance described in the method section of this report. For the individual child scores, separate association unit, method and response distributions were calculated for communications from (1) observed child to teacher; (2) observed child to child; (3) teacher to observed child; and (4) child to observed child.

Questions eight and nine were answered by distributing (1) response qualities against method qualities (2) method and response qualities against association unit qualities separately for communications initiated by teachers to children, children to teachers, and children to children.

ASSOCIATION UNIT FINDINGS

Frequency of Association Units by Agent and Target

The total distributions given in table 39 indicate that, considering all schools combined, the majority (fifty per cent) of association units involved communications among children. Association units from teacher to child were second in frequency (thirty-seven per cent). Child to teacher association units were comparatively low in frequency of occurrence, at twelve per cent.

When the individual preschool settings are considered, the results in table 39 show that all environments followed this ordering of frequency of association unit agent and target possibilities except for Head Start, in which communications from teacher to child rather than child to child, ranked highest.

The gross frequency distributions of table 39 and the analysis of variance results shown in table 40 also indicate that there were differences among the environments in the extent to which association units from teacher to child, child to teacher, and child to child were emphasized or discouraged.

Head Start differed most from the norm, stressing frequency and percentage of communications initiated by teachers to children and by children to teachers and minimizing interactions among children. The Montessori setting emphasized frequency and percentage of association units among children and was significantly lower than the other

Table 39

FREQUENCY AND PERCENTAGE DISTRIBUTIONS OF ASSOCIATION UNITS BY AGENT AND TARGET AND BY SCHOOL

A Unit	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Teacher-Child	432	33	398	47	383	27	371	39	457	41	545	43	2586	37
Child-Teacher	116	09	172	20	150	11	158	16	87	08	123	10	806	12
Child-Child	706	56	272	32	852	61	421	44	563	51	600	47	3414	50
Other	19	02	11	01	19	01	11	01	2	00	8	00	70	01
Total	1273	100.0	853	100.0	1404	100.0	961	100.0	1109	100.0	1276	100.0	6876	100.0

Table 40

ANALYSES OF VARIANCE SCHOOL COMPARISONS OF MEANS AND PERCENTAGES ON FREQUENCY OF ASSOCIATION UNITS BY AGENT AND TARGET

Frequency of Association Units from...	Franchise Day Care $\overline{X}$	Head Start $\overline{X}$	Montessori $\overline{X}$	Community Day Care $\overline{X}$	Laboratory School I 1 $\overline{X}$	Laboratory School II $\overline{X}$
Observed Child to Teacher	6.4 9.3	11.4** 17.2**	6.3 10.4	9.7* 16.0**	5.1 7.9*	8.1 9.0**
Observed Child to Child	22.6 29.6	11.2* 15.8**	19.2 30.7	14.9 23.3	17.9 26.5	21.3 23.7
Teacher to Observed Child	24.0 36.1	28.0* 49.3**	16.6** 28.1**	23.2 40.0	26.9* 42.0	36.1** 44.8
Child to Observed Child	16.6 23.4	8.3** 14.1**	17.8 29.0**	11.4 19.0	15.3* 23.5	18.6* 21.1

NOTE. - DF = 1 and 74

*F>3.5, p<.05-

**F>7.0, p<.01.

schools in frequency and proportion of units initiated by teachers to children. The Community Day Care Center was exceptional in encouraging interactions from children to teachers. Laboratory Nursery School Classrooms Number 1 and Number 2 exhibited a greater percentage of association units initiated by children to teachers, and a greater frequency, although not a greater proportion, of units initiated by teachers to children and children to their peers.

Association Unit Goals

Frequency and percentage distributions of goal qualities of association units are given in table 41 for communications from teacher to child; in table 42 for communications from child to teacher; and in table 43 for communications from child to child. The overall findings show that the goal of the association unit varied according to who was the agent and who was the target of the communication.

Association units having teacher as agent, child as target. Considering all schools combined, teacher-initiated association units primarily served the purpose of setting maintenance. Maintenance accounted for 65 per cent of the total number of teacher-initiated inputs to children. Other-oriented nonmaintenance goals accounted for 35 per cent of all teacher-initiated units. In all schools, teachers' communications to children stressed the classroom management function over goals providing curricular inputs or otherwise directed at satisfying the needs of children.

The majority of teacher-initiated association units (40 per cent considering all schools combined) involved procedural-structuring goals (see table 41). Deviance control ranked second (17 per cent), and cognitive inputs (17 per cent) ranked third. Although the individual categories falling under the broad class of having a social aim were low in frequency, when these categories were combined, teacher-initiated social inputs to children accounted for twelve per cent of the total number of units. Units having a physical aim were low in occurrence (5 per cent), as were core action (4 per cent) and choice of, invitation to activity (3 per cent).

The distributions in table 41 and the analysis of variance findings in table 44 indicate that there were variations among the six settings in the goals encouraged by teacher-initiated units.

The Franchise Day Care Center evidenced a significantly greater proportion of deviance control units than the other settings combined. Therefore, more effort was spent by teachers in this center on setting maintenance than in any

Table 41

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS FOR ASSOCIATION UNIT GOALS HAVING TEACHER AS AGENT AND CHILD AS TARGET

Teacher to Child	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Setting Maintenance														
Procedural-Structuring	161	37.3	173	43.5	136	35.5	166	44.7	171	37.4	222	40.7	1029	39.8
Choice of, Invitation to Activity	9	2.1	6	1.5	10	2.6	9	2.4	13	2.8	20	3.7	67	2.6
Deviance Control	114	26.4	76	19.1	84	21.9	68	18.3	30	6.6	74	13.6	446	17.2
Core Action	23	5.3	9	2.3	16	4.2	6	1.6	30	6.6	20	3.7	104	4.0
Direct Action - Other Orientation														
Cognitive	70	16.2	52	13.1	67	17.5	45	12.1	117	25.6	93	17.1	444	17.2
Social														
Peer Relations			1	0.3	2	0.5			11	2.4	10	1.8	24	0.9
Affection, Comfort	13	3.0	5	1.3	2	0.5	14	3.8	5	1.1	10	1.8	49	1.0
Recognition	11	2.5	8	2.0	4	1.0	14	3.8	13	2.8	25	4.6	75	2.9
Social Knowledge	6	1.4	15	3.8	17	4.4	15	4.0	26	5.7	21	3.9	100	3.9
Cultural Habits	6	1.4	36	9.0	11	2.9	19	5.1	4	0.9	9	1.7	85	3.3
Physical	13	3.0	12	3.0	27	7.0	12	3.2	27	5.9	30	5.5	121	4.7
Other	6	1.4	5	1.3	7	1.8	3	0.8	10	2.2	11	2.0	42	1.6
Total	432	100.0	398	100.0	383	100.0	371	100.0	457	100.0	545	100.0	2586	100.0

Table 42

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS FOR ASSOCIATION UNIT GOALS HAVING CHILD AS AGENT AND TEACHER AS TARGET

Child to Teacher	Franchise Day Care Freq.	%	Head Start Freq.	%	Montessori Freq.	%	Community Day Care Freq.	%	Laboratory School I Freq.	%	Laboratory School II Freq.	%	Total Freq.	%
Setting Maintenance														
Procedural-Structuring	0	0.0	0	0.0	0	0.0	1	0.6	0	0.0	0	0.0	1	0.1
Core Action	0	0.0	10	5.8	0	0.0	3	1.9	4	4.6	0	0.0	17	2.1
Direct Action--Self Orientation														
Objects from	6	5.2	32	18.6	8	5.3	13	8.2	6	6.9	19	15.4	84	10.4
Information from	17	14.7	17	9.9	22	14.7	17	10.7	5	5.7	10	8.1	88	10.9
Assistance from	24	20.7	16	9.3	29	19.3	22	13.8	11	12.6	19	15.4	121	15.0
Activity with	1	0.9	3	1.7	11	7.3	4	2.5	1	1.1	2	1.6	22	2.7
Recognition from	17	14.7	27	15.7	13	8.7	25	15.7	18	20.7	13	10.6	113	14.0
Permission from	6	5.2	11	6.4	15	10.0	15	9.4	6	6.9	11	8.9	64	7.9
Affection, Comfort from	14	12.1	5	2.9	5	3.4	4	2.5	4	4.5	4	3.3	36	4.5
Activity, Self-protection	7	6.0	4	2.3	1	0.7	5	3.1	4	4.6	3	2.4	24	3.0
Aggress Against	0	0.0	1	0.6	2	1.3	0	0.0	0	0.0	0	0.0	3	0.4
Spontaneous Expression	20	17.2	44	25.6	42	28.0	47	29.6	26	29.9	42	34.1	221	27.4
Other	4	3.4	2	1.2	2	1.3	3	1.9	2	2.3	0	0.0	13	1.6
Total	116	100.0	172	100.0	150	100.0	159	100.0	87	100.0	123	100.0	807	100.0

Table 43

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS FOR ASSOCIATION UNIT GOALS HAVING CHILD AS AGENT AND CHILD AS TARGET

Child to Child	Franchise Day Care Freq.	%	Head Start Freq.	%	Montessori Freq.	%	Community Day Care Freq.	%	Laboratory School I Freq.	%	Laboratory School II Freq.	%	Total Freq.	%
Setting Maintenance														
Procedural-Structuring	51	7.2	6	2.2	80	9.4	29	6.9	67	11.9	36	6.0	269	7.9
Choice of, Invitation to Activity	1	0.1			1	0.1							2	0.1
Deviance Control	7	1.0	3	1.1	9	1.1	2	0.5			5	0.8	26	0.8
Core Action	14	2.0	10	3.7	21	2.5	19	4.5	62	11.0	44	7.3	170	5.0
Direct Action - Other Orientation														
Cognitive	3	0.4			4	0.5	1	0.2	4	0.7	3	0.5	15	0.4
Social														
Peer Relations	41	5.8	14	5.1	52	6.1	27	6.4	35	6.2	46	7.7	215	6.3
Affection, Comfort	26	3.7	9	3.3	20	2.3	17	4.0	16	2.8	11	1.8	99	2.9
Recognition					2	0.2					1	0.2	3	0.1
Social Knowledge	1	0.1					1	0.2					2	0.1
Cultural Habits							1	0.2	1	0.2			2	0.1
Physical	2	0.3	1	0.4	4	0.5	3	0.7			1	0.2	11	0.3
Direct Action - Self Orientation														
Objects from	60	8.5	29	10.7	52	6.1	37	8.7	27	4.8	51	8.5	256	7.5
Information from	48	6.8	0	3.3	56	6.6	24	5.7	24	4.3	36	6.0	197	5.8
Assistance from	14	2.0	11	4.0	24	2.8	6	1.4	29	5.1	19	3.2	103	3.0
Activity with	103	14.6	31	11.4	80	9.4	59	13.9	70	12.4	71	11.8	414	12.1
Recognition from	16	2.3	6	2.2	16	1.9	8	1.9	4	0.7	11	1.8	61	1.8
Permission from	1	0.1	0	0.0	8	0.9	2	0.5	14	2.5	8	1.3	33	1.0
Affection, Comfort from	1	0.1	1	0.0	2	0.2	0	0.0	3	0.5	3	0.5	10	0.3
Activity, Self-Protection	90	12.8	53	19.5	125	14.7	55	13.3	92	16.3	74	12.3	489	14.3
Aggress Against	100	14.2	39	14.3	63	7.4	23	5.4	11	2.0	33	5.5	269	7.9
Spontaneous expression	108	15.3	47	17.3	214	25.1	101	23.9	19	17.6	142	23.7	711	20.8
Other	18	2.6	3	1.1	19	2.2	8	1.9	6	1.1	5	0.8	59	1.7
Total	705	100.0	272	100.0	852	100.0	423	100.0	564	100.0	600	100.0	3416	100.0

Table 44

ANALYSIS OF VARIANCE SIGNIFICANT SCHOOL MEANS
ON PERCENTAGES OF ASSOCIATION UNITS
BY AGENT AND TARGET

	Franchise Day Care	Head Start	Montessori	Community Day Care	Laboratory School I	Laboratory School II
Teacher to Observed Child:						
Deviance Control	27.0**	17.6	20.5**	19.4	5.0	13.8
Core Action	4.9	2.6	4.6	2.0*	5.7	3.8
Cognitive	14.5	13.3	17.8	11.1**	24.7	16.5
Recognition	2.5	1.9**	0.9**	3.8	2.9	4.5
Social Knowledge	1.1**	3.3	4.3	4.4	5.2	3.6
Cultural Habits	1.5*	8.7**	2.7	4.7**	0.9	1.7
Observed Child to Teacher:						
Objects from	4.9	28.8**	6.6	7.1	6.0*	20.2
Assistance from	23.9*	6.6	15.9	13.5	11.3	13.1
Observed Child to Child:						
Procedural-Structuring	6.5	1.2*	7.0	5.0	11.0	3.6
Affection, Comfort	4.4	6.5	2.4	7.0	3.9	0.9*
Information from	6.1*	1.0	5.0	2.3	2.8	5.5
Child to Observed Child:						
Procedural-Structuring	6.5	4.4	8.2	4.8*	12.1	5.8
Assistance from	2.9	4.3	1.9	1.9**	6.4	2.4
Aggress Against	16.0	9.1	9.2	9.2	1.4*	7.6

NOTE. - DF = 1 and 74.
*F 3.5, p .05.
**F 7.0, p .01.

other environment. Significantly fewer teacher-initiated units in the Franchise Day Care Center involved social knowledge and cultural habits, distinguishing this setting as the one in which teachers' interactions with children placed least emphasis upon the social realm.

Head Start differed from the other settings in evidencing significantly fewer teacher-initiated units having the purpose of recognizing children's special accomplishments and significantly more units involving cultural habits.

The Montessori setting was unique in comparison with the other environments in placing significantly greater emphasis upon deviance control and minimizing teacher-initiated units having the function of recognizing children for their accomplishments. The Montessori Nursery School was second only to the Franchise Day Care Center in the extent to which it minimized teacher inputs to children having a social aim.

Teachers' core action and cognitive association units were significantly deemphasized in the Community Day Care Center, whereas the cultural habit goal was encouraged, distinguishing this environment as the one in which there were fewest cognitive inputs and greatest social inputs from teachers to children.

Laboratory Nursery School Classrooms Number 1 and Number 2 did not differ significantly from the other schools combined. Characteristics of teacher-initiated association units goals approximated those for the total distribution of all schools described above.

Association units having child as agent, teacher as target. As shown in table 36, children's initiations to teachers, aside from a very few setting maintenance inputs, were self-oriented, serving the purpose of satisfying their own desires. The total distribution of the six settings combined indicates that spontaneous expression of thoughts and feelings ranked highest, accounting for 27 per cent of the total number of child to teacher units. Seeking assistance from teachers ranked second (15 per cent), obtaining recognition third (14 per cent), and seeking information and objects ranked fourth and fifth, respectively (11 per cent each). Asking for permission to do something or go someplace accounted for 8 per cent of child to teacher units. Association units in which children sought affection or comfort, protected activities, sought activity with teachers, or aggressed against teachers were low in occurrence.

The individual school distributions shown in table 36 and the analysis of variance findings shown in table 38 indicate that there were few differences among the settings in child to teacher association unit goals. The Franchise Day Care Center displayed a significantly greater proportion of units in which children sought assistance from teachers as compared with the remaining five settings. Requests for objects from teachers were significantly greater in Head Start and significantly fewer in Laboratory Nursery School Classroom Number 1.

Association units having child as agent, child as target. Child to child association units covered a broader range of association unit goals than teacher to child and child to teacher units. Although they clustered heavily in the broad goal class of direct action - self orientation (76 per cent), a substantial number of them fell under setting maintenance (8 per cent) and direct action - other orientation (6 per cent). Similar to child to teacher communications, the greatest proportion of child to child interactions in all settings were spontaneous expressions, accounting for 21 per cent of the units (see total distribution in table 37). Activity self-protection was second in over-all prominence (14 per cent), and seeking activity with another child third (12 per cent). Units directed at structuring their own activities (8 per cent), aggressing against other children (8 per cent), obtaining objects from others (8 per cent), encouraging or displaying friendly, cooperative peer relations (6 per cent), obtaining information from others (6 per cent), and core action (5 per cent) were intermediate in over-all occurrence in these environments. It is notable that the peer relations goal appeared to be as high or higher in occurrence among child to child as compared with child to teacher communications, indicating that children in the preschool may learn as much or more about cooperativeness and friendliness from peer associations as from adults.

The distributions for the individual settings given in table 37 and the analysis of variance findings reported in table 38 indicate that a few differences appeared among the preschool environments. Observed children in the Franchise Day Care Center were significantly higher in seeking information from and significantly lower in seeking assistance from other children. In Head Start, observed children directed a significantly lower proportion of procedural - structuring association units to other children, causing this environment to be lower than any of the schools in child to child setting maintenance units. The Montessori environment did not differ in child to child association unit goals from the other schools combined. Children in the Community Day Care Center evidenced a significantly lower proportion of procedural - structuring units and units in which they sought assistance from one another. Attempts to aggress against peers were proportionately fewer in Laboratory Nursery School Classroom Number 1, and units in which children offered affection or comfort to other children was significantly lower in Laboratory Nursery School Classroom Number 2.

Specificity of Association Units

The findings on association unit specificity indicate that almost all child to teacher (99 per cent) and child to child (96 per cent) communications were directed toward single rather than multiple target individuals. Only teacher to child units showed any differentiation. Considering all schools combined (see table 45), forty-five per cent of teachers' communications were directed toward individual children and fifty-five per cent toward more than one child. The individual school distributions given in table 38 and the analysis of variance findings indicate that there were variations among settings in the specificity of teacher to child associations. The Franchise Day Care Center displayed a significantly greater proportion of multiple specificity units, and the Montessori Nursery School, the Community Day Care Center, and Laboratory Nursery School Classroom Number 2 a significantly greater proportion of single specificity units.

Method Coerciveness

The analysis of method coerciveness categories according to the three agent to target possibilities indicated that teachers' methods directed toward children and children's methods directed toward teachers were similar in accentuating mild coercion over noncoercion and strong coercion. In contrast, children's methods directed to other children revealed a greater proportion of both noncoercive and strongly coercive methods than did interactions among teachers and children.

Teacher to child methods. Mild requests and suggestions accounted for an over-all 61 per cent of teacher to child methods and were greatest in occurrence in all settings (see table 46). Informing ranked second in all environments and accounted for an over-all 20 per cent of methods initiated by teachers to children. Demanding ranked third (5 per cent) in over-all occurrence; helping, giving fourth (4 per cent); confirming fifth (4 per cent); and blocking sixth (3 per cent). The remaining categories of minimal action; handling, holding; encouraging; challenging; and attacking were very low in occurrence in all settings.

Table 45

SPECIFICITY OF AU WITH TEACHER AS AGENT AND CHILD AS TARGET BY SCHOOL

Specificity	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
			Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Single Target	133	30.8	161	40.5	206	53.8	195	52.6	185	40.5	279	51.2	1159	44.82
Multiple Target	299	69.2	237	59.5	177	46.2	176	47.4	272	59.5	266	48.8	1427	55.18
Total	432	100.0	398	100.0	383	100.0	371	100.0	457	100.0	545	100.0	2586	100.0

Table 46

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS FOR COERCIVENESS OF METHODS HAVING TEACHER AS AGENT AND CHILD AS TARGET

Method Coerciveness	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Teacher as Agent, Child as Target	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Minimal Action	2	0.3	6	1.1	2	0.4	4	0.8	3	0.4	4	0.5	21	0.6
Handling, Holding	10	1.7	2	0.4	2	0.4	9	1.7	2	0.3	9	1.1	34	0.9
Helping, Giving	23	3.9	33	6.0	22	4.3	21	4.0	11	1.5	44	5.4	154	4.2
Informing	99	16.8	102	18.6	116	22.9	85	16.4	192	26.9	159	19.4	753	20.4
Confirming	18	3.1	14	2.6	12	2.4	22	4.2	41	5.7	31	3.8	138	3.7
Encouraging	3	0.5	4	0.7	4	0.8	4	0.8	5	0.7	10	1.2	30	0.8
Requesting, Suggesting	356	60.4	320	58.5	282	55.7	335	64.5	445	62.3	513	62.6	2251	60.9
Challenging	2	0.3	10	1.8			5	1.0			3	0.4	20	0.5
Blocking	21	3.6	18	3.3	17	3.4	12	2.3	9	1.3	29	3.5	106	2.9
Demanding	55	9.3	35	6.4	49	9.7	22	4.0	6	0.8	18	2.2	185	5.0
Attacking			2	0.4									2	0.1
Other	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Total	589	100.0	547	100.0	506	100.0	519	100.0	714	100.0	820	100.0	3695	100.0

When the broad method categories were considered, (see table 47), mildly coercive attempts to influence children (62 per cent) were employed most often by teachers. Teachers used noncoercive techniques moderately often (30 per cent). Seldom (8 per cent) did they resort to strong coercion.

The distributions for the individual schools given in tables 46 and 47 and the analysis of variance findings indicated a few differences among the settings. Teachers in the Franchise Day Care Center informed significantly less and made significantly more demands upon children than teachers in the other settings. Teachers in the Montessori Nursery School made proportionately more demands of children. In the Community Day Care Centers teachers evidenced a significantly greater proportion of methods in which holding or touching the target child was the communicative mode. Informing was significantly lower in this environment as compared with the other settings. Considering the broad method categories, mild coercion was a significantly more prominent teacher method in the Community Day Care Center. Laboratory Nursery School Classrooms Number 1 and 2 and Head Start did not show any variations which were statistically significant.

Child to teacher methods. Like teacher to child methods, methods initiated by children to teachers (see table 48) emphasized the mild request and suggestion category (53 per cent) and the category of informing (39 per cent). All other categories were either very low in frequency or did not occur. As shown in table 49, when the broad method coerciveness categories were considered, mildly coercive methods accounted for 53 per cent of the total number of child to teacher methods and noncoercion accounted for 44 per cent. Strongly coercive child to teacher methods were almost nonexistent.

The distributions for the individual schools given in tables 48 and 49 reveal that the six settings were markedly similar in child to teacher method qualities. The analysis of variance setting comparisons revealed only one significant difference. Children in the Franchise Day Care Center evidenced proportionately fewer attempts to inform as compared with the remaining environments.

Child to child methods. Child to child methods distributed themselves among a greater range of categories than did communications between teachers and children. Again, as shown in table 50, requesting and informing accounted for the largest proportion of method characteristics (35 and 29 per cent, respectively). Attacking (12 per cent), blocking (7 per cent), demanding (5 per cent), helping, giving (5 per cent) and handling, holding (4 per cent) were also prominent in occurrence. On the broad method categories (see table 51),

Table 47

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON METHOD BROAD COERCIVENESS CATEGORIES HAVING TEACHER AS AGENT AND CHILD AS TARGET

Method Coerciveness Teacher as Agent, Child as Target	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Noncoercive	152	25.8	157	28.7	154	30.4	141	27.2	249	34.9	247	30.1	1100	29.8
Mild Coercive	361	61.3	334	61.1	286	56.5	344	66.3	450	63.0	526	64.1	2301	62.3
Strong Coercive	76	12.9	55	10.1	66	13.1	34	6.6	15	2.1	47	5.7	293	7.9
Other	00	0.0	1	0.2	00	0.0	00	0.0	00	0.0	00	0.0	1	0.0
Total	589	100.0	547	100.0	506	100.0	519	100.0	714	100.0	820	100.0	3695	100.0

Table 48

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS FOR COERCIVENESS OF METHODS HAVING CHILD AS AGENT AND TEACHER AS TARGET

Method Coerciveness	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Child as Agent, Teacher as Target	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Minimal Action	3	2.3	5	2.7	1	0.6	3	1.7	2	2.1	2	1.5	16	1.8
Handling, Holding	6	4.7	2	1.1	3	1.8	2	1.1	3	3.2	0	0.0	16	1.8
Helping, Giving	3	2.3	2	1.1	5	3.1	3	1.7	0	0.0	0	0.0	13	1.5
Informing	36	27.9	82	44.6	50	30.7	76	43.4	44	46.3	51	37.8	339	38.5
Confirming	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Encouraging	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Requesting, Suggesting	75	58.1	84	45.7	95	58.3	89	50.0	43	45.3	80	59.3	466	52.9
Challenging	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Blocking	1	0.8	1	0.5	0	0.0	0	0.0	1	1.1	0	0.0	3	0.3
Demanding	4	3.1	7	3.8	3	1.8	2	1.1	1	1.1	2	1.5	19	2.2
Attacking	1	0.8	1	0.5	3	1.8	0	0.0	0	0.0	0	0.0	5	0.6
Other	0	0.0	0	0.0	3	1.8	0	0.0	1	1.1	0	0.0	4	0.5
Total	129	100.0	184	100.0	163	100.0	175	100.0	95	100.0	135	100.0	881	100.0

Table 4 9

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON METHOD BROAD COERCIVENESS CATEGORIES HAVING CHILD AS AGENT AND TEACHER AS TARGET

Method Coerciveness Child as Agent, Teacher as Target	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Non-Coercive	48	37.2	91	49.5	59	36.2	84	48.0	49	51.6	53	39.3	384	43.6
Mildly Coercive	75	58.1	84	45.7	95	58.3	89	50.9	43	45.3	80	59.3	466	52.9
Strongly Coercive	6	4.7	9	4.9	6	3.7	2	1.1	2	2.1	2	1.5	27	3.1
Other	0	0.0	0	0.0	3	1.8	0	0.0	1	1.1	0	0.0	4	0.5
Total	129	100.0	184	100.0	163	100.0	175	100.0	95	100.0	135	100.0	881	100.0

Table 50

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS FOR COERCIVENESS OF METHODS HAVING CHILD AS AGENT AND CHILD AS TARGET

Method Coerciveness	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Child as Agent, Child as Target	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Minimal Action	15	1.9	4	1.4	10	1.0	15	3.2	9	1.4	6	0.8	59	1.5
Handling, Holding	42	5.2	17	5.8	24	2.4	19	4.0	26	3.9	22	3.1	150	3.8
Helping, Giving	24	3.0	14	4.7	53	5.4	25	5.3	49	7.4	39	5.5	204	5.2
Informing	188	23.2	76	25.8	319	32.3	147	30.9	178	27.0	244	34.5	1152	29.3
Confirming	1	0.1	0	0.0	0	0.0	0	0.0	6	0.9	2	0.3	9	0.2
Encouraging	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Requesting, Suggesting	283	34.9	72	24.4	328	33.2	159	33.4	270	40.9	249	35.2	1361	34.6
Challenging	0	0.0	0	0.0	0	0.0	2	0.4	2	0.3	1	0.1	5	0.1
Blocking	45	5.6	22	7.5	86	8.7	29	6.1	54	8.2	54	7.6	290	7.4
Demanding	43	5.3	25	8.5	52	5.3	27	5.7	40	6.1	22	3.1	209	5.3
Attacking	162	20.0	62	21.0	105	10.6	51	10.7	26	3.9	66	9.3	472	12.0
Otner	7	0.9	3	1.0	10	1.0	2	0.4	0	0.0	3	0.4	25	0.6
Total	810	100.0	295	100.0	987	100.0	476	100.0	660	100.0	708	100.0	3936	100.0

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Table 51

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON METHOD BROAD COERCIVENESS CATEGORIES HAVING CHILD AS AGENT AND CHILD AS TARGET

Method Coerciveness	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Child as Agent, Child as Target	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Noncoercive	270	33.3	111	37.6	406	41.1	206	43.3	268	40.6	313	44.2	1574	40.0
Mildly Coercive	283	34.9	72	24.4	328	33.2	161	33.8	272	41.2	250	35.3	1366	34.7
Strongly Coercive	250	30.9	109	36.9	243	24.6	107	22.5	120	18.2	142	20.1	971	24.7
Other	7	0.9	3	1.0	10	1.0	2	0.4	0	0.0	3	0.4	25	0.6
Total	810	100.0	295	100.0	987	100.0	476	100.0	660	100.0	708	100.0	3936	100.0

although all three categories were prominent, noncoercive methods initiated by children to other children (40 per cent) predominated over mild (34 per cent) and strong (25 per cent) coercion.

Again, as indicated by the distributions for the individual schools in tables 49 and 50 and the analysis of variance findings, few large setting differences revealed themselves. The percentage of attacks among children was significantly greater in the Franchise Day Care Center and Head Start and significantly fewer in Laboratory Nursery School Classroom Number 1. In addition, Head Start revealed a significantly lower proportion of requests, and Montessori and the Community Day Care Center a significantly greater proportion of informing. On the broad method categories, Head Start displayed a significant emphasis upon strong coercion and minimized mild coercion. Laboratory Nursery School Classroom Number 1 exhibited a significantly smaller proportion of strongly coercive methods as compared with the other environments.

Verbalness of Methods.

Table 52 displays the findings on the extent to which methods were verbal or nonverbal for the three agent and target possibilities. The over-all distributions for the six schools indicate that methods initiated by teachers to children were almost entirely verbal in nature (94 per cent). Methods initiated by children to teachers were also predominantly verbal (86 per cent). Although largely verbal, child to child interactions showed a greater predominance of nonverbal modes; 77 per cent of methods initiated by children to other children were verbal.

The distributions for the individual schools given in table 52 and the analysis of variance findings show that only the Franchise Day Care Center and Head Start showed any significant deviations from the remaining settings. The Franchise Day Care Center revealed a significantly lower proportion of verbal methods initiated by teachers to children and by children to other children. Children in Head Start displayed a lower percentage of verbal methods in communications with their peers.

Response Congruence.

The over-all findings with respect to response congruence indicate that children's responses to teacher-initiated methods were more likely to be congruent with the association unit goal than were teacher's or children's responses to child-initiated methods. Considering all three possible agent and target combinations, targets of influence attempts exhibited more congruent than

Table 52

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON FREQUENCY AND PERCENTAGE OF VERBALNESS OF METHOD BY AGENT AND TARGET

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Teacher to Child:														
Verbal	536	91.0	510	93.2	474	93.7	488	94.0	698	97.8	754	92.0	3460	93.6
Nonverbal	53	9.0	37	6.8	31	6.1	31	6.0	16	2.2	66	8.0	234	6.3
Not Clear	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	1	0.0
Total	589	100.0	547	100.0	506	100.0	519	100.0	714	100.0	820	100.0	3695	100.0
Child to Teacher:														
Verbal	102	79.1	158	85.9	138	84.7	157	89.7	85	88.5	122	90.4	762	86.4
Nonverbal	27	20.9	26	14.1	25	15.3	18	10.3	11	11.5	13	9.6	120	13.6
Not Clear	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	129	100.0	184	100.0	163	100.0	175	100.0	96	100.0	135	100.0	822	100.0
Child to Child:														
Verbal	529	65.3	199	67.5	805	81.6	362	76.1	547	82.8	570	80.5	3012	76.5
Nonverbal	280	34.6	96	32.5	182	18.4	114	23.9	114	17.2	138	19.5	924	23.5
Not Clear	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Total	810	100.0	295	100.0	987	100.0	476	100.0	661	100.0	708	100.0	3937	100.0

noncongruent responses. The majority of the time, desires on the part of both teachers and children in these six environments met with satisfaction. In instances where noncongruent responses occurred, ignoring of the association unit agent was the predominant response employed by both teachers and children.

Responses by children to teacher-initiated methods. As table 53 indicates, complying correctly (33 per cent), attending (23 per cent), accepting, acknowledging (20 per cent), and ignoring (14 per cent) were the major responses employed by children to teacher-initiated methods. All other categories were low in occurrence. On the broad response categories (see table 54), eighty per cent of children's responses to teachers were congruent with association unit end goals, and eighteen per cent were noncongruent.

The distributions for each of the six settings given in tables 53 and 54 and the analysis of variance findings indicate few differences among the environments. In the Franchise Day Care Center, the proportion of ignoring was significantly greater and the proportion of complying correctly significantly less as compared with the other schools. Considering the broad adaptation categories, there were significantly fewer congruent responses and more noncongruent responses by children to teachers. The Montessori Nursery School showed a significantly greater proportion of child negations to teachers' influence attempts, and the Community Day Care Center a significantly lower proportion of the attending response by children to teachers.

Responses by teachers to child-initiated methods. As indicated by the total distributions given in table 55 , the predominant responses on the part of teachers to child-initiated methods included accepting, acknowledging (28 per cent), complying (23 per cent), ignoring (21 per cent), negating (8 per cent), and informing (6 per cent). Teachers felt freer not to satisfy the desires of children than children felt with respect to teachers' desires. As table 56 shows, thirty-five per cent of all teachers' responses to children were noncongruent with association unit end goals, and sixty per cent were congruent.

When setting differences were considered, the distributions in tables 55 and 56 and the analysis of variance findings revealed that the Franchise Day Care Center and Montessori significantly stressed teachers' correct compliance to child-initiations. Head Start significantly emphasized ignoring and the Community Day Care Center accepting, acknowledging, Laboratory Nursery School Classroom Number 2 revealed

Table 53

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON RESPONSE CONGRUENCE CATEGORIES HAVING CHILD AS TARGET, TEACHER AS AGENT

Response Congruence Child as Target, Teacher as Agent	Franchise Day Care Freq.	%	Head Start Freq.	%	Montessori Freq.	%
Attending	135	22.9	113	20.7	110	21.7
Accepting Acknowledging	122	20.7	101	18.5	95	18.8
Complying Correctly	164	27.8	190	34.8	173	34.2
Complying Incorrectly	12	2.0	12	2.2	15	3.0
Informing	3	0.5	3	0.5	14	2.8
Withdrawing	1	0.2	0	0.0	1	0.2
Ignoring	127	21.6	81	14.8	56	11.1
Whining, Crying	2	0.3	1	0.2	2	0.4
Delaying	0	0.0	0	0.0	2	0.4
Seeking Assistance	1	0.2	0	0.0	0	0.0
Questioning	0	0.0	1	0.2	1	0.2
Negating	15	2.5	26	4.8	28	5.5
Attacking	0	0.0	7	1.3	0	0.0
Not Clear	1	0.2	2	0.4	0	0.0
New Initiation	0	0.0	1	0.2	1	0.2
No Response	6	1.0	8	1.5	8	1.6
Total	589	100.0	546	100.0	506	100.0

Table 53 continued

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON RESPONSE CONGRUENCE CATEGORIES HAVING CHILD AS TARGET, TEACHER AS AGENT

Community Day Care		Laboratory School I		Laboratory School II		Total	
Freq.	**%**	**Freq.**	**%**	**Freq.**	**%**	**Freq.**	**%**
102	19.7	206	28.9	176	21.5	842	22.8
115	22.2	118	16.5	173	21.1	724	19.6
192	37.0	224	31.4	261	31.8	1204	32.6
12	2.3	37	5.2	23	2.8	111	3.0
11	2.1	10	1.4	14	1.7	55	1.5
0	0.0	1	0.1	2	0.2	5	0.1
56	10.8	73	10.2	121	14.8	514	13.9
0	0.0	0	0.0	1	0.1	6	0.2
4	0.8	0	0.0	1	0.1	7	0.2
0	0.0	0	0.0	2	0.2	3	0.1
3	0.6	3	0.4	2	0.2	10	0.3
10	1.9	7	1.0	18	2.2	104	2.8
0	0.0	0	0.0	1	0.1	8	0.2
1	0.2	0	0.0	2	0.2	6	0.2
0	0.0	3	0.4	3	0.4	8	0.2
13	2.5	32	4.5	20	2.4	87	2.4
519	100.0	714	100.0	820	100.0	3694	100.0

Table 54

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON BROAD RESPONSE CONGRUENCE CATEGORIES HAVING CHILD AS TARGET, TEACHER AS AGENT

Response Congruence	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Child as Target, Teacher as Agent	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Congruent	436	74.0	419	76.7	407	80.4	432	83.2	595	83.3	647	78.9	2936	79.5
Non-congruent	146	24.8	116	21.2	90	17.8	73	14.1	84	11.8	148	18.0	657	17.8
Other	7	1.2	11	2.0	9	1.8	14	2.7	35	4.9	25	3.0	101	2.7
Total	589	100.0	546	100.0	506	100.0	519	100.0	714	100.0	820	100.0	3694	100.0

Table 55

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON RESPONSE CONGRUENCE CATEGORIES HAVING TEACHER AS TARGET, CHILD AS AGENT

Response Congruence Teacher as Target, Child as Agent	Franchise Day Care		Head Start		Montessori	
	Freq.	%	Freq.	%	Freq.	%
Attending	6	4.7	6	3.3	6	3.7
Accepting Acknowledging	30	23.3	53	28.8	41	25.2
Complying Correctly	35	27.1	41	22.3	45	27.6
Complying Incorrectly	0	0.0	0	0.0	0	0.0
Informing	9	7.0	8	4.3	9	5.5
Withdrawing	0	0.0	0	0.0	0	0.0
Ignoring	27	20.9	54	29.3	36	22.1
Whining, Crying	0	0.0	0	0.0	0	0.0
Delaying	2	1.6	2	1.1	9	5.5
Seeking Assistance	0	0.0	0	0.0	0	0.0
Questioning	4	3.1	1	0.5	3	1.8
Negating	9	7.0	11	6.0	11	6.7
Attacking	0	0.0	0	0.0	1	0.6
Not Clear	4	3.1	1	0.5	0	0.0
New Initiation	3	2.3	6	3.3	2	1.2
No Response	0	0.0	1	0.5	0	0.0
Total	129	100.0	184	100.0	163	100.0

Table 55 Continued

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON RESPONSE CONGRUENCE CATEGORIES HAVING TEACHER AS TARGET, CHILD AS AGENT

Community Day Care		Laboratory School I		Laboratory School II		Total	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
6	3.4	3	3.1	7	5.2	34	3.9
62	35.4	31	32.3	26	19.3	243	27.6
34	19.4	17	17.7	31	23.0	203	23.0
0	0.0	0	0.0	0	0.0	0	0.0
9	5.1	8	8.3	8	5.9	51	5.8
0	0.0	0	0.0	1	0.7	1	0.1
30	17.1	17	17.7	22	16.3	186	21.1
0	0.0	0	0.0	0	0.0	0	0.0
6	3.4	3	3.1	5	3.7	27	3.1
0	0.0	0	0.0	0	0.0	0	0.0
6	3.4	4	4.2	8	5.9	26	2.9
13	7.4	6	6.3	16	11.9	66	7.5
0	0.0	0	0.0	0	0.0	1	0.7
2	1.1	2	2.1	0	0.0	9	1.0
6	3.4	5	5.2	7	5.2	29	3.3
1	0.6	0	0.0	4	3.0	6	0.7
175	100.0	96	100.0	135	100.0	882	100.0

Table 56

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON BROAD RESPONSE CONGRUENCE CATEGORIES HAVING TEACHER AS TARGET, CHILD AS AGENT

Response Congruence	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Teacher as Target, Child as Agent	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Congruent	80	62.0	108	58.7	101	62.0	111	63.4	59	61.5	72	53.3	531	60.2
Non-congruent	42	32.6	68	37.0	60	36.8	55	31.4	30	31.3	52	38.5	307	34.8
Other	7	5.4	8	4.3	2	1.2	9	5.1	7	7.3	11	8.1	44	5.0
Total	129	100.0	184	100.0	163	100.0	175	100.0	96	100.0	135	100.0	882	100.0

significantly lower proportions of accepting, acknowledging and ignoring and a significantly higher proportion of negations by teachers. A significantly lower proportion of congruent and a higher proportion of noncongruent teacher responses were also evident in Laboratory Nursery School Classroom Number 2.

Responses by children to child-initiated methods. As indicated by the total distribution in table 57, accepting, acknowledging (29 per cent), ignoring (17 per cent), complying correctly (14 per cent), attending (11 per cent), informing (5 per cent), and attacking (4 per cent) were the major responses elicited by children to child-initiated methods. When the broad response categories were examined (see table 58), sixty per cent of children's responses to other children were congruent with their desires and thirty-eight per cent were noncongruent.

The distributions for the individual settings given in tables 57 and 58 and the analysis of variance findings revealed very few large differences among the environments in children's responses to peer methods. The only significant differences which appeared were a greater proportion of attacks in the Franchise Day Care Center and a greater percentage of ignoring and fewer attacks in Laboratory Nursery School Classroom No. 2 as compared with other schools.

Verbalness of Responses

As compared with methods, responses of all three agent-target combinations tended to be highly nonverbal (see table 59). It is interesting to note that teachers' responses to child-initiated methods were proportionately more nonverbal (82 per cent falling into this mode) than were children's responses to either teachers or their peers. Children tended to use verbal modes more often when responding to teachers than when responding to children (57 per cent and 29 per cent, respectively).

Distributions for the six environments given in table 59 and the analysis of variance findings revealed several differences among the schools. Teachers' responses to children in the Franchise Day Care Center and Head Start were significantly more nonverbal as compared with the other environments. In addition, the proportion of children's responses to teachers was significantly more nonverbal in Head Start, whereas in the Community Day Care Center and Laboratory Nursery School Classroom Number 2, children's responses to teachers were significantly more verbal. In addition, Laboratory Nursery School Classroom Number 2 further distinguished itself by evidencing a significantly greater proportion of verbal responses by children to their peers.

Table 57

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON RESPONSE CONGRUENCE CATEGORIES HAVING CHILD AS TARGET, CHILD AS AGENT

Response Congruence Child as Target, Child as Agent	Franchise Day Care		Head Start		Montessori	
	Freq.	%	Freq.	%	Freq.	%
Attending	77	9.5	32	10.8	130	13.2
Accepting Acknowledging	215	26.5	83	28.1	263	26.6
Complying Correctly	120	14.8	35	11.9	132	13.4
Complying Incorrectly	5	0.6	0	0.0	3	0.3
Informing	35	4.3	14	4.7	62	6.3
Withdrawing	13	1.6	12	4.1	16	1.6
Ignoring	113	14.0	53	18.0	170	17.2
Whining, Crying	13	1.6	2	0.7	7	0.7
Delaying	0	0.0	3	1.0	4	0.4
Seeking Assistance	4	0.5	2	0.7	2	0.2
Questioning	10	1.2	1	0.3	12	1.2
Negating	126	15.6	41	13.9	126	12.8
Attacking	52	6.4	10	3.4	44	4.5
Not Clear	8	1.0	4	1.4	4	0.4
New Initiation	8	1.0	1	0.3	7	0.7
No Response	11	1.4	2	0.7	5	0.5
Total	810	100.0	295	100.0	987	100.0

Table 57 Continued

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON RESPONSE CONGRUENCE CATEGORIES HAVING CHILD AS TARGET, CHILD AS AGENT

Community Day Care		Laboratory School I		Laboratory School II		Total	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
51	10.7	63	9.5	73	10.3	426	10.8
145	30.5	196	29.7	232	32.8	1134	28.8
64	13.4	119	18.0	86	12.1	556	14.0
3	0.6	4	0.6	2	0.3	17	0.4
27	5.7	28	4.2	47	6.6	213	5.4
1	0.2	3	0.5	10	1.4	55	1.4
75	15.8	148	22.4	97	13.7	656	16.7
5	1.1	1	0.2	4	0.6	32	0.8
1	0.2	3	0.5	4	0.6	15	0.4
4	0.8	1	0.2	4	0.6	17	0.4
8	1.7	6	0.9	13	1.8	50	1.3
71	14.9	68	10.3	97	13.7	529	13.4
11	2.3	3	0.5	18	2.5	138	3.5
1	0.2	6	0.9	5	0.7	28	0.7
6	1.3	4	0.6	5	0.7	31	0.8
3	0.6	8	1.2	11	1.6	40	1.0
476	100.0	661	100.0	708	100.0	3937	100.0

Table 58

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON BROAD RESPONSE CONGRUENCE CATEGORIES HAVING CHILD AS TARGET, CHILD AS AGENT

Response Congruence	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
Child as Target, Child as Agent	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Congruent	452	55.3	164	55.6	590	59.8	290	60.9	410	62.0	440	62.1	2346	59.6
Non-congruent	331	40.9	124	42.0	381	38.6	176	37.0	233	35.2	247	34.9	1492	37.9
Other	27	3.3	7	2.4	16	1.6	10	2.1	18	2.7	21	3.0	99	2.5
Total	810	100.0	295	100.0	987	100.0	476	100.0	661	100.0	708	100.0	3937	100.0

Table 59

TOTAL DISTRIBUTION AND DISTRIBUTIONS FOR THE SIX PRESCHOOL SETTINGS ON FREQUENCY AND PERCENTAGE OF VERBALNESS OF RESPONSE BY AGENT AND TARGET

	Franchise Day Care		Head Start		Montessori		Community Day Care		Laboratory School I		Laboratory School II		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Teacher to Child:														
Verbal	66	11.2	85	15.0	109	21.5	105	20.2	155	21.7	163	19.9	680	18.4
Nonverbal	523	88.8	465	85.0	397	78.5	414	79.8	559	78.3	657	80.1	3015	81.6
Not Clear	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	589	100.0	547	100.0	506	100.0	519	100.0	714	100.0	820	100.0	3695	100.0
Child to Teacher:														
Verbal	71	55.0	78	42.4	91	55.8	112	64.0	58	60.4	90	66.7	500	56.7
Nonverbal	58	45.0	106	57.6	72	44.2	63	36.0	38	39.6	45	33.3	382	43.3
Not Clear	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	129	100.0	184	100.0	163	100.0	175	100.0	96	100.0	135	100.0	882	100.0
Child to Child:														
Verbal	204	25.2	56	19.0	298	30.2	143	30.0	176	26.6	246	34.7	1123	28.5
Nonverbal	606	74.8	238	80.7	689	69.8	333	70.0	485	73.4	462	65.3	2813	71.5
Not Clear	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0	0	0.0	1	0.0
Total	810	100.0	295	100.0	987	100.0	476	100.0	661	100.0	708	100.0	3937	100.0

Summary

An examination of association unit, method, and response qualities revealed that the incidence of social interaction properties differed according to who was the agent and target of the influence attempt -- teacher or child.

Association unit goals initiated by teachers to children emphasized setting maintenance and direct action oriented at meeting children's needs. Procedural-structuring, deviance control and cognitive inputs were the most frequently occurring categories. In contrast, association units initiated by children to teachers were predominantly self-oriented, directed at satisfying their own desires, particularly in terms of spontaneous expression, seeking assistance, recognition, and obtaining objects. Association units initiated by children to their peers emphasized a broader range of goals than communications among teachers and children. Though they fell primarily into the broad class of self-oriented direct action, several setting maintenance and other-oriented direct action goals were also prominent. Spontaneous expression; activity, self-protection; seeking activity with other children; procedural, structuring; obtaining objects from peers; encouraging or manifesting cooperative peer relations; seeking information; and core action were the most frequently occurring categories.

The analysis of association unit specificity revealed that almost all child to teacher and child to child communications were directed at single targets. Teacher to child association units were divided, having both single and multiple targets.

The findings with respect to method characteristics revealed that teachers' methods directed at children and children's methods directed at teachers accentuated mildly coercive over noncoercive and strongly coercive techniques. Methods having children as agents and targets displayed a larger proportion of noncoercive and strongly coercive methods than teacher to child or child to teacher communication. Requesting and informing were the two most prominent method categories for all agent to target possibilities. The attacking category was stressed only in interactions among children. Although methods were predominantly verbal no matter who was the agent or target of the influence attempt, methods from child to child displayed a greater incidence of nonverbal modes than those from teacher to child or child to teacher.

Responses of both teachers and children, regardless of agent, were largely congruent with association unit goals. In general, the desires of initiators of social interaction tended to meet with satisfaction. Children's responses to teachers were somewhat more likely to be congruent than teachers responses to children or children's responses to their peers. Accepting, acknowledging and complying correctly were the most prominent congruent responses and ignoring the most evident noncongruent response for all targets. Responses of both teachers and children were all highly nonverbal. Teachers' responses to children were proportionately more nonverbal than children's responses to teachers or their peers.

Several differences among the six preschool settings in characteristics of social interaction appeared. The differences were greater for interactions initiated by teachers to children than for the other agent to target possibilities.

The Franchise Day Care Center emphasized: In teacher to child communications; association unit deviance control and multiple specificity; nonverbal methods, noncongruent and nonverbal responses; in child to teacher communications, association unit seeking assistance and nonverbal responses; in child to child communications, association unit seeking information and nonverbal methods.

Head Start emphasized: A higher incidence of communications among teachers and children; in teacher to child communications, association unit cultural habits, nonverbal responses; in child to teacher communications, association unit seeking objects; in child to child communications, strongly coercive methods, particularly attacking.

The Montessori Nursery School encouraged: A higher incidence of communications among children; in teacher to child communications, association unit deviance control, single specificity; a deemphasis upon teacher to child association unit social goals, particularly recognition.

The Community Day Care Center stressed: A higher incidence of communications initiated by children to teachers; in teacher to child communications, an emphasis upon association unit cultural habits and a deemphasis upon cognitive goals; an emphasis upon mildly coercive and verbal methods.

Of all environments Laboratory Nursery School Classrooms Number 1 and 2 best approximated the norm of all schools combined. Laboratory Nursery School Classroom Number 1 accentuated communications from children to teachers and minimized child to child strongly coercive methods, particularly attacks.

Laboratory Nursery School Classroom Number 2 encouraged: Communications from children to teachers; in teacher to child communications, single specificity, verbal responses; in child to teacher communications, noncongruent responses; in child to child communications, verbal responses, fewer attacks.

INTERRELATIONSHIP OF ASSOCIATION UNIT, METHOD, AND RESPONSE QUALITIES

In order to explore the dependence of social interaction upon situational aspects of communication itself, two-dimensional frequency distributions were constructed for the total sample. In the tables, response characteristics were distributed against method characteristics and both method and response qualities were distributed against the most frequently occurring association unit goal properties. The percentage scores obtained in the table were then examined for indications of interrelationships among social interaction characteristics.

Relationship Between Method Coerciveness and Response Congruence

The findings in table 60 suggest that response congruence was dependent upon the coerciveness of the method employed in the same way for all three agent to target combinations. As methods moved from noncoercive to mildly coercive to strongly coercive, responses became progressively less congruent. Strong pressure tended not to lead to goal satisfaction. As table 60 indicates, this tendency was moderate in the case of children's responses to teachers but became accentuated for children's responses to peers, and even more so for teachers' responses to children.

Relationship Between Association Unit Goal and Method Coerciveness

Teacher to child communications. An over-all comparison of methods against association unit goals showed that coerciveness of influence attempts varied with goals of the action. (See table 61.)

When teachers' goals with respect to children involved core action; affection, comfort; and recognition, they used methods which were predominantly noncoercive in nature. Mildly coercive methods were particularly prominent when teachers structured, encouraged children to choose an activity, and engaged in teaching behaviors of fostering

Table 60

RELATIONSHIP OF METHOD COERCIVENESS TO RESPONSE CONGRUENCE FOR THE THREE AGENT TO TARGET COMBINATIONS

	Method					
	Noncoercive		Mildly Coercive		Strongly Coercive	
Response	Freq.	%	Freq.	%	Freq.	%
	Teacher as Agent, Child as Target					
Congruent	886	80.6	1837	79.8	213	72.7
Noncongruent	130	11.8	446	19.4	80	27.3
Other	83	7.6	18	0.8	0	0.0
Total	1099	100.0	2301	100.0	293	100.0
	Child as Agent, Teacher as Target					
Congruent	249	64.8	274	58.8	6	22.2
Noncongruent	108	28.1	176	37.8	21	77.8
Other	27	7.0	16	3.4	0	0.0
Total	384	100.0	466	100.0	27	100.0
	Child as Agent, Child as Target					
Congruent	1082	68.7	839	61.4	413	42.5
Noncongruent	446	28.3	496	36.3	537	55.3
Other	46	2.9	31	2.3	21	2.2
Total	1574	100.0	1366	100.0	971	100.0

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Table 61

RELATIONSHIP BETWEEN ASSOCIATION UNIT GOAL AND METHOD COERCIVENESS FOR UNITS HAVING TEACHERS AS AGENT AND CHILD AS TARGET FOR ALL SCHOOLS COMBINED

	Method Coerciveness							
Prominent Association Unit Goals	Noncoercive		Mildly Coercive		Strongly Coercive		Total	
	Freq.	%	Freq	%	Freq.	%	Freq.	%
Procedural-Structuring	342	24.8	996	72.3	39	2.8	1377	100.0
Choice of, Invitation to Activity	9	11.1	72	88.9	0	0.0	81	100.0
Deviance Control	46	8.0	281	49.9	237	42.1	563	100.0
Core Action	88	73.3	32	26.7	0	0.0	120	100.0
Cognitive	301	34.2	572	65.1	6	0.7	879	100.0
Peer Relations	15	44.1	19	55.9	0	0.0	34	100.0
Affection, Comfort	50	90.9	5	9.1	0	0.0	55	100.0
Recognition	65	73.0	24	27.0	0	0.0	89	100.0
Social Knowledge	57	39.0	89	61.0	0	0.0	146	100.0
Cultural Habits	28	24.6	80	70.2	6	5.3	114	100.0
Physical	68	35.2	120	62.2	5	2.6	193	100.0

social knowledge, cultural, habits, cognitive and physical skills The peer relations goal stressed both noncoercive and mildly coercive methods. All association units initiated by teachers to children were low in strongly coervice methods from teachers except deviance control, which deemphasized noncoercion and emphasized both mild and strong coercion.

Child to teacher communications. As shown in table 62, children's spontaneous expressions to teachers were almost entirely noncoercive in nature. Seeking objects from, information from or permission from teachers were predominantly mildly coercive, and obtaining recognition or affection from teachers tended to rely on both noncoercive and mildly coercive techniques.

Child to child communications. Peer relations and spontaneous expressions among children stressed noncoercive techniques, whereas procedural-structuring, seeking activity with and recognition from other children were predominantly mildly coercive, although these units also evidenced a substantial number of noncoercive techniques (see table 63). Seeking information from other children was almost entirely mildly coercive. Attempts to obtain objects from other children stressed both mildly and strongly coercive methods. Goals of activity, self-protection and aggress against were strongly coercive in method quality.

Relationship Between Association Unit Goal and Response Congruence

Teacher to child communications. Children's responses to teacher-initiated association units were highly congruent for all goal categories. As table 64 indicates, peer relations and deviance control displayed a greater proportion of noncongruent responses than any of the other goal categories.

Child to teacher communications. Although the majority of teachers' responses to commonly occurring child-initiated units were congruent, seeking permission, objects and recognition from teachers elicited more noncongruent responses than the other goal categories of seeking information and assistance from teachers and spontaneous expression of thoughts and feelings. (see table 65)

Child to child communications. Table 66 indicates that association unit goals among children of procedural-structuring, peer relations, seeking information, and spontaneous expression tended to be highly congruent in the responses they elicited. Seeking objects from, activity with, and activity, self-protection from other children were goals

Table 62

RELATIONSHIP BETWEEN ASSOCIATION UNIT GOAL AND METHOD COERCIVENESS FOR UNITS HAVING CHILD AS AGENT AND TEACHER AS TARGET FOR ALL SCHOOLS COMBINED

Prominent Association Unit Goal	Method Coerciveness							
	Noncoercive		Mildly Coercive		Strongly Coercive		Total	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Objects From	2	2.2	80	88.9	8	8.9	90	100.0
Information From	2	2.1	92	97.9	0	0.0	94	100.0
Assistance From	17	12.1	121	86.4	2	1.4	140	100.0
Recognition From	69	58.5	49	41.5	0	0.0	118	100.0
Permission From	2	2.9	66	97.1	0	0.0	68	100.0
Spontaneous Oral Expression	226	95.0	12	5.0	0	0.0	238	100.0

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Table 63

RELATIONSHIP BETWEEN ASSOCIATION UNIT GOAL AND METHOD COERCIVENESS FOR UNITS HAVING CHILD AS AGENT AND CHILD AS TARGET FOR ALL SCHOOLS COMBINED

Prominent Association Unit Goal	Method Coerciveness: Noncoercive Freq.	%	Mildly Coercive Freq.	%	Strongly Coercive Freq.	%	Total Freq.	%
Procedural-Structuring	101	30.8	210	64.0	17	5.2	328	100.0
Peer Relations	196	89.1	24	10.9	0	0.0	220	100.0
Objects From	5	1.7	151	52.1	134	46.2	290	100.0
Information From	12	5.7	197	94.3	0	0.0	209	100.0
Assistance From	6	4.7	115	89.8	7	5.5	128	100.0
Activity With	135	26.7	340	67.2	31	6.1	506	100.0
Recognition From	34	46.6	39	53.4	0	0.0	73	100.0
Activity or Self-protection	58	10.4	70	12.5	432	77.1	560	100.0
Aggress Against	2	0.7	0	0.0	303	99.3	305	100.0
Spontaneous Oral Expression	717	92.0	55	7.1	7	0.9	779	100.0

Table 64

RELATIONSHIP BETWEEN ASSOCIATION UNIT GOAL AND RESPONSE CONGRUENCE FOR UNITS HAVING TEACHER AS AGENT AND CHILD AS TARGET FOR ALL SCHOOLS COMBINED

Prominent Association Unit Goals	Response Congruence					
	Congruent		Noncongruent		Total	
	Freq.	%	Freq.	%	Freq.	%
Procedural-Structuring	1108	81.4	253	18.6	1361	100.0
Choice of, Invitation to Activity	63	79.7	16	20.3	79	100.0
Deviance Control	404	72.5	153	27.5	557	100.0
Core Action	99	83.2	20	16.8	119	100.0
Cognitive	719	86.9	108	13.1	827	100.0
Peer Relations	21	65.6	11	34.4	32	100.0
Affection, Comfort	48	88.9	6	11.1	54	100.0
Recognition	74	88.1	10	11.9	84	100.0
Social Knowledge	120	82.2	26	17.8	146	100.0
Cultural Habits	95	87.2	14	12.8	109	100.0
Physical	149	80.5	36	19.5	185	100.0

Table 65

RELATIONSHIP BETWEEN ASSOCIATION UNIT GOAL AND RESPONSE CONGRUENCE FOR UNITS HAVING CHILD AS AGENT AND TEACHER AS TARGET FOR ALL SCHOOLS COMBINED

Prominent Association Unit Goals	Response Congruence					
	Congruent		Noncongruent		Total	
	Freq.	%	Freq.	%	Freq.	%
Objects From	52	58.4	37	41.6	89	100.0
Information From	69	75.8	22	24.2	91	100.0
Assistance From	88	65.2	47	34.8	135	100.0
Activity With	13	59.1	9	40.9	22	100.0
Recognition From	65	58.0	47	42.0	112	100.0
Permission From	33	50.0	33	50.0	66	100.0
Spontaneous Expression	151	69.6	66	30.4	217	100.0

Table 66

RELATIONSHIP BETWEEN ASSOCIATION UNIT GOAL AND RESPONSE CONGRUENCE FOR UNITS HAVING CHILD AS AGENT AND CHILD AS TARGET FOR ALL SCHOOLS COMBINED

Prominent Association Unit Goals	Response Congruence					
	Congruent		Noncongruent		Total	
	Freq.	%	Freq.	%	Freq.	%
Procedural-Structuring	228	71.7	90	28.3	318	100.0
Peer Relations	162	75.0	54	25.0	216	100.0
Objects From	144	49.5	147	50.5	291	100.0
Information From	148	71.8	58	28.2	206	100.0
Assistance From	79	62.7	47	37.3	126	100.0
Activity With	295	58.5	209	41.5	504	100.0
Recognition From	49	67.1	24	32.9	73	100.0
Activity or Self-protection	298	54.4	250	45.6	548	100.0
Aggress Against	76	25.2	225	74.8	301	100.0
Spontaneous Oral Expression	528	69.7	229	30.3	757	100.0

which were more evenly divided among congruent and noncongruent responses. The aggress against category yielded responses which were highly noncongruent in nature.

Summary

The findings with respect to interrelationships among association unit, method, and response characteristics indicated that for all agent to target communications, the more coercive the method, the greater the tendency for responses to influence attempts to be noncongruent. However, additional results indicated that this method-response dependence was, to some extent, mediated by association unit goal characteristics. For teacher to child communications, deviance control was high in strong coercion as well as noncongruence of responses. Child to teacher communications of seeking permission and objects, although predominantly mildly coercive, exerted more pressure than other child to teacher interactions and also elicited a higher proportion of noncongruent responses. The more coercive communications among children, including seeking objects from; activity, self-protection; and aggress against, also elicited the most noncongruent responses.

Part II

In Part II, the social interaction content of preschool activities is examined by exploring interrelationships among activity dimension, association unit, and method and response qualities. The specific questions under consideration are:

1. Is the density of social interaction greater in some kinds of activities than others?
2. What kinds of association unit goals for the three agent to target communication possibilities are encouraged by activities having different characteristics?
3. How is method coerciveness related to activity qualities?

In order to explore these questions, prominent association unit goal qualities and method coerciveness and response congruence properties were distributed against activity dimension qualities. The percentages of occurrence of social interaction categories were then compared with one another. In order to study the density of social interaction in different kinds of activities, it was necessary to adjust the total number of association units occurring in an activity for the length of time that activity was observed to occur. This was done by dividing the frequency of association units by activity time in minutes to yield a number representing association units per minute occurring for each activity quality.

SOCIAL INTERACTION DENSITY IN DIFFERENT KINDS OF ACTIVITIES

Utilization of Resources

Teacher to child communications. Table 67 indicates that music; book-related; washing, toileting; transition; and organized group activities were highest in overall density of teacher to child communications, indicating that teachers viewed these activities as requiring a high degree of adult input. Resting, animal and plant care, block building, dramatic play, media experiences and playground activities were lowest in density of teacher to child interaction. The remaining resources (dressing, arts and crafts, table activities, and eating) fell within an intermediate range.

Table 67

ASSOCIATION UNITS PER MINUTE BY AGENT AND TARGET OCCURRING IN UTILIZATION OF RESOURCES ACTIVITY QUALITIES FOR ALL SCHOOLS COMBINED

Association Unit	Agent and Target		
	Teacher to Child	Child to Teacher	Child to Child
Book-related	.63	.10	.29
Block Building	.15	.12	.84
Table Activities	.40	.11	.51
Dramatic Play	.17	.10	1.01
Arts and Crafts	.40	.21	.53
Organized Group Activities	.50	.08	.34
Music	.64	.02	.34
Animal and Plant Care	.09	.03	.90
Playground Activities	.18	.08	.95
Media Experiences	.19	.06	.47
Eating	.36	.23	.41
Resting	.22	.01	.37
Dressing	.44	.12	.39
Washing, Toileting	.53	.14	.27
Transition	.51	.13	.53

Child to teacher communications. Eating and arts and crafts appeared relatively high in child to teacher association units (see table 67), whereas music, animal and plant care, and resting were low in child to teacher density.

Child to child communications. As table 67 indicates, the density of association units among children was highest for dramatic play, playground activities, animal and plant care, and block building. It was relatively low for book-related and washing, toileting and intermediate for the remaining resources of table activities, arts and crafts, transition, media experiences, eating, dressing, resting, organized group activities, and music.

Child Behavior

Teacher to child communications. As indicated by the association unit densities reported in table 68, activities encouraging child behaviors of readying and vocal and instrumental expression were comparatively high in density of teacher inputs to children, whereas activities stressing wandering, exploring and nonactive behaviors were low. The remainder (watching, listening; drawing, making; waiting; eating; manipulating; performing, acting out; and large muscle activity) were intermediate in density of teacher to child communications.

Child to teacher communications. Activities encouraging eating and drawing, making were high in child-initiated association units to teachers, whereas vocal and instrumental expression and nonactive behaviors were low (see table 68). The remaining behaviors of readying; wandering, exploring; waiting; manipulating; watching, listening; performing, acting out; and large muscle activity were intermediate in child to teacher interaction density.

Child to child. Child behaviors of performing, acting out and large muscle activity were high in child to child association unit density. Wandering, exploring; manipulating; drawing, making; readying; waiting; vocal and instrumental expression; and eating were intermediate, and watching, listening was low in child to child interaction density. (see table 68)

Group Size

Grouping arrangements which particularly encouraged teacher to child association units (see table 69) were the large cluster and total class group. In contrast, child to child communications were fostered by pairs and small clusters. Grouping arrangements were not differentiated in terms of child to teacher association unit density.

Table 68

ASSOCIATION UNITS PER MINUTE BY AGENT AND TARGET OCCURRING IN CHILD BEHAVIOR ACTIVITY QUALITIES FOR ALL SCHOOLS COMBINED

Association Unit	Agent and Target		
	Teacher to Child	Child to Teacher	Child to Child
Nonactive	.22	.01	.37
Waiting	.38	.11	.42
Watching, Listening	.46	.09	.09
Readying	.68	.14	.50
Wandering, Exploring	.20	.14	.63
Eating	.36	.23	.40
Manipulating	.33	.10	.59
Drawing, Making	.39	.21	.54
Vocal and Instrumental Expression	.61	.02	.42
Performing, Acting Out	.27	.08	.85
Large Muscle Activity	.26	.07	.75

Table 69

ASSOCIATION UNITS PER MINUTE BY AGENT AND TARGET OCCURRING IN GROUP SIZE ACTIVITY QUALITIES FOR ALL SCHOOLS COMBINED

Association Unit Agent and Target	Total Class Group	Large Cluster	Small Cluster	Pair	Single Child
Teacher to Child	.50	.56	.28	.25	.28
Child to Teacher	.12	.12	.12	.12	.14
Child to Child	.42	.43	.85	.90	.36

Coordination of Children's Actions

Among action coordination possibilities, simultaneous coordination of children's actions fostered the highest density of teacher to child association units. Noncoordination ranked second, and reciprocal coordination was lowest (see table 70). Noncoordination of children's actions slightly emphasized child to teacher communications over reciprocal and simultaneous coordination. Child to child association unit density was greatly encouraged by reciprocal coordination of children's actions in comparison with simultaneous and noncoordination.

Teacher Leadership Pattern

Table 71 shows that as teacher leadership pattern moved from not in activity to active leadership, the density of teacher to child association units linearly increased, and child to child associations linearly decreased. Child to teacher communications were best fostered by the teacher participator role.

Activity Initiation

As table 72 indicates, the density of teacher to child association units was fostered in teacher-initiated activities while the density of child to child communications was encouraged by child-initiated activities. Activity initiation did not affect the occurrence of interactions initiated by children to teachers.

Summary

The findings on social interaction density in different kinds of activities indicate that a high density of teacher to child association units was fostered by resources of music; book related activities; washing, toileting; transition; and organized group activities; by activities encouraging child behaviors of readying; vocal and instrumental expression; large cluster and total class grouping arrangements; by simultaneous coordination of children's actions; by active teacher leadership; and teacher-initiated activities.

Child to child communications were encouraged by activity resources of dramatic play; playground activities; animal and plant care; and block building; by child behaviors of performing, acting out and large muscle activity; by pair and small cluster grouping arrangements; by reciprocal coordination of children's actions; by teacher leadership pattern of not in activity; and activities which were child-initiated.

Table 70

ASSOCIATION UNITS PER MINUTE BY AGENT AND TARGET OCCURRING IN COORDINATION OF CHILDREN'S ACTIONS ACTIVITY QUALITIES FOR ALL SCHOOLS COMBINED

Coordination of Children's Actions	Association Unit Agent and Target		
	Teacher to Child	Child to Teacher	Child to Child
Coordinated/ Simultaneous	.65	.04	.30
Coordinated/ Reciprocal	.24	.09	1.03
Not Coordinated	.42	.13	.49

Table 71

ASSOCIATION UNITS PER MINUTE BY AGENT AND TARGET OCCURRING IN TEACHER LEADERSHIP **PATTERN** ACTIVITY QUALITIES FOR ALL SCHOOLS COMBINED

Association Unit Agent and Target	Not in Activity	Watcher, Helper	Participator	Active Leadership
Teacher to Child	.11	.38	.53	.73
Child to Teacher	.06	.17	.57	.12
Child to Child	.80	.51	.46	.30

Table 72

ASSOCIATION UNITS PER MINUTE BY AGENT AND TARGET OCCURRING IN ACTIVITY INITIATION ACTIVITY QUALITIES FOR ALL SCHOOLS COMBINED

Association Unit Agent and Target	Teacher-Initiated	Child-Initiated
Teacher to Child	.54	.18
Child to Teacher	.13	.11
Child to Child	.39	.78

Child to teacher association unit density was fostered by eating and arts and crafts resources and corresponding child behaviors of eating and drawing, making. In addition, noncoordination of children's actions and the teacher role of participator encouraged child to teacher communications.

RELATIONSHIP BETWEEN ACTIVITY QUALITIES AND ASSOCIATION UNIT GOALS

Utilization of Resources

Teacher to child communications. Table 73 displays the percentages of occurrence of prominently occurring teacher to child association unit goals in the different activity resources.

A comparison of the association unit percentages of occurrence reveals that activity resources which encouraged high proportions of teacher procedural-structuring behavior were: organized group activities, transition, resting, music, dressing, eating, and playground activities. Book related activities and media experiences were lowest in teacher procedural-structuring units.

Although media experiences was notable for its comparative deemphasis upon teacher procedural-structuring units, it excelled in evidencing the highest proportion of teacher deviance control units of any activity. Over half of teachers' communications to children in media experiences were directed at controlling disruptive behavior. Washing, toileting; eating; playground activities; and transition were also high in proportion of teacher deviance control, whereas dressing and arts and crafts were low.

Among teacher's direct action units, cognitive inputs to children were best fostered by table activities, book-related, and arts and crafts resources. Arts and crafts and resting encouraged a relatively high proportion of teacher's recognition of children's behavior or accomplishments. Social knowledge inputs were most encouraged by dramatic play and book-related activities, and washing, toileting and eating were comparatively high in cultural habit training. Dressing, playground activities, and music revealed the highest proportion of teacher's physical inputs to children.

Child to teacher communications. The percentage scores on the relationship of child to teacher association unit goals to activity resources shown in table 74 reveal that eating encouraged the greatest proportion of attempts on the part

Table 73

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY RESOURCE QUALITIES

Resources	Prominent Association Unit Goals					
	Procedural Structuring		Deviance Control		Cognitive	
	Freq.	%	Freq.	%	Freq.	%
Book Related	45	13.4	50	14.9	116	34.6
Table Activities	77	28.1	30	10.9	128	46.7
Dramatic Play	18	20.2	13	14.6	9	10.1
Arts and Crafts	62	31.3	7	3.5	56	28.3
Organized Group Activities	47	58.0	12	14.8	6	7.4
Music	64	48.5	18	13.6	16	12.1
Playground Activities	17	39.5	9	20.9	3	7.0
Media Experience	14	18.2	42	54.5	7	9.1
Eating	85	39.4	49	22.7	22	10.2
Resting	20	55.6	5	13.9	2	5.6
Dressing	16	45.7	3	8.6	1	2.9
Washing, Toileting	11	29.7	9	24.3	2	5.4
Transition	544	56.5	194	20.2	73	7.6

Table 73 continued

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY RESOURCE QUALITIES

Having Teacher as Agent, Child as Target							
Recognition		Social Knowledge		Cultural Habits		Physical	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
3	0.9	24	7.2	2	0.6	2	0.6
8	2.9	10	3.6	3	1.1	3	1.1
2	2.2	8	9.0	5	5.6	4	4.5
19	9.6	7	3.5	1	0.5	31	15.7
1	1.2	1	1.2			8	9.9
4	3.0	3	2.3			20	15.2
3	0.7					9	20.9
1	1.3	2	2.6	1	1.3	2	2.6
4	1.9	8	3.7	38	17.6	3	1.4
3	8.3	2	5.6				
1	2.9					10	28.6
				11	29.7	4	10.8
24	2.5	35	3.6	20	2.1	22	2.3

NOTE. - Resources of block building and animal and plant care were deleted from the analysis because they contained too few teacher to child association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 74

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO TEACHER ASSOCIATION UNIT GOALS AGAINST ACTIVITY RESOURCE QUALITIES

Prominent Association Unit Goals Having Child as Agent, Teacher as Target	Resources											
	Book Related		Table Activities		Dramatic Play		Arts and Crafts		Eating		Transition	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Objects From	3	5.3	2	2.6	4	7.5	9	8.8	38	27.1	25	9.6
Information From	13	22.8	4	5.3	1	1.9	11	10.8	15	10.7	37	14.2
Assistance From	7	12.3	18	23.7	6	11.3	21	20.6	12	8.6	37	14.2
Activity With	0	0.0	6	7.9	2	3.8	2	2.0	0	0.0	11	4.2
Permission From	1	1.8	6	7.9	2	3.8	22	21.6	7	5.0	33	12.6
Spontaneous Expression	24	42.1	21	27.6	16	30.2	32	31.4	41	29.3	55	21.1

NOTE.- Resources of block building, organized group activities, music, animal and plant care, resting, dressing, playground activities, media experience and washing toileting were deleted from the analysis because they contained too few child to teacher association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

of children to seek objects from teachers. Seeking information from teachers was best fostered by book-related activities. Playground, table activities, and arts and crafts, as compared with other resources, encouraged children to seek assistance from teachers, and table activities displayed a higher proportion of children's attempts to seek activity with teachers than any other resource. The greatest percentage of children's requests for permission from teachers was displayed by the arts and crafts resource. Spontaneous expression of thoughts and feelings on the part of children to teachers was encouraged by book-related, dramatic play, arts and crafts, and eating activity resources.

Child to child communications. Table 75 displays the percentages of occurrence of child to child association unit goals in different activity resources. The findings indicate that the greatest proportion of attempts on the part of children to structure activities among themselves occurred in the organized group and playground activity resources. Organized group activities, eating, and arts and crafts, as compared with other resources, fostered the greatest proportion of efforts on the part of children to encourage or manifest friendly, cooperative peer relations. Seeking objects from other children was proportionately highest in arts and crafts and book-related resources. Children's attempts to seek information from peers was most encouraged by media experiences, and seeking activity with other children was proportionately highest during rest time. Block building, playground activities, and book-related resources were comparatively high in child to child activity, self-protection units. Attempts on the part of children to aggress against peers were highest during resting. They were also high during music and eating and comparatively low in resources of block building, organized group activities, and dramatic play. Resources of eating, arts and crafts, animal and plant care, and block building fostered the highest proportion of children's spontaneous expressions of thoughts and feelings to one another.

Child Behavior

Teacher to child communications. Table 76 reveals that teachers' procedural-structuring social units were fostered by activities encouraging nonactive, waiting, readying and vocal and instrumental expression behaviors. Teachers tended to exhibit a greater proportion of association units aimed at controlling children's disruptive behavior during activities stressing wandering, exploring and waiting. Deviance control was low during activities encouraging vocal and instrumental expression and drawing, making.

Table 75

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY RESOURCE QUALITIES

Resources	Prominent Association Unit Goals							
	Procedural Structuring		Peer Relations		Objects From		Information From	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Book Related	4	2.6	3	2.0	20	13.2	8	5.3
Block Building	14	14.0	1	1.0	0	0.0	5	5.0
Sedentary Activities	26	7.4	27	7.7	27	7.7	26	7.4
Dramatic Play	46	9.1	18	3.6	40	7.9	21	4.1
Arts and Crafts	5	1.9	25	9.7	41	15.8	19	7.3
Organized Group Activities	16	29.1	7	12.7	2	3.6	3	5.5
Music	5	7.1	3	4.3	6	8.6	5	7.1
Animal and Plant Care	11	14.5	2	2.6	6	7.9	5	6.6
Playground Activities	61	26.8	10	4.4	7	3.1	3	1.3
Media Experience	6	3.3	11	6.0	14	7.7	22	12.0
Eating	5	2.0	24	9.8	12	4.9	15	6.1
Resting	0	0.0	2	3.3	2	3.3	4	6.7
Transition	66	6.6	76	7.6	76	7.6	58	5.8

Table 75 continued

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT
CHILD TO CHILD ASSOCIATION UNIT GOALS
AGAINST ACTIVITY RESOURCE QUALITIES

Having Child as Agent, Child as Target							
Activity With		Activity, Self-protect		Aggress Against		Spontaneous Expression	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
21	13.8	30	19.7	13	8.6	35	23.0
16	16.0	26	26.0	1	1.1	27	27.0
42	12.0	49	14.0	19	5.4	81	23.2
39	7.7	87	17.2	10	2.0	64	12.6
12	4.6	21	8.1	14	5.4	92	35.5
3	5.5	4	7.3	1	1.8	9	16.4
10	14.3	8	11.4	9	12.9	14	20.0
3	3.9	16	21.1	4	5.3	23	30.3
34	14.9	46	20.2	18	7.9	19	8.3
30	16.4	19	10.4	16	8.7	39	21.3
25	10.2	14	5.7	32	13.1	90	36.9
14	23.3	3	5.0	12	20.0	13	21.7
159	15.9	152	15.2	108	10.8	186	18.7

NOTE. -Resources of dressing and washing, toileting were deleted from the analysis because they contained too few child to child association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring child to child association unit goals.

Table 76

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR QUALITIES

Child Behavior	Prominent Association Unit Goals					
	Procedural Structure		Deviance Control		Cognitive	
	Freq.	%	Freq.	%	Freq.	%
Nonactive	20	55.6	5	13.9	2	5.6
Waiting	39	55.7	18	25.7	4	5.7
Watching, Listening	82	16.4	101	20.2	167	33.5
Readying	466	58.9	145	18.3	65	8.2
Wandering, Exploring	39	37.1	32	30.5	6	5.7
Eating	85	39.4	49	22.7	22	10.2
Manipulating	103	34.6	37	12.4	98	32.9
Drawing, Making	49	28.7	7	4.1	44	25.7
Vocal and Instrumental Expression	31	51.7	5	8.3	9	15.0
Performing, Acting out	61	35.7	25	14.6	21	12.3
Large Muscle Activity	45	46.4	16	16.5	3	3.1

Table 76 continued

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR QUALITIES

Having Teacher as Agent, Child as Target							
Recognition		Social Knowledge		Cultural Habits		Physical	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
3	8.3	2	5.6	0	0.0	0	0.0
0	0.0	7	10.0	0	0.0	0	0.0
5	1.0	33	6.6	4	0.8	4	0.8
22	2.8	27	3.4	16	2.0	19	2.4
2	1.9	3	2.9	3	2.9	3	2.9
4	1.9	8	3.7	38	17.6	3	1.4
10	3.4	2	0.7	11	3.7	18	6.0
17	9.9	7	4.1	1	0.6	32	18.7
0	0.0	2	3.3	0	0.0	7	11.7
6	3.5	8	4.7	5	2.9	10	5.8
5	2.2	0	0.0	0	0.0	23	23.7

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring teacher to child association unit goals.

Among teacher-initiated direct action units, cognitive inputs to children were proportionately greatest in activities emphasizing watching, listening; manipulating; and drawing, making. Teachers' recognition of children's behavior and accomplishments were encouraged by nonactive and drawing, making activity behaviors. Teachers' social knowledge inputs were accentuated by the child behavior of waiting, the cultural habit goal by eating; and physical inputs by activities stressing large muscle activity; drawing, making; and vocal and instrumental expression.

Child to teacher communications. As table 77 indicates, children sought objects from teachers proportionately most often during eating. Activities which emphasized child behaviors of wandering, exploring and watching, listening encouraged a greater percentage of attempts by children to obtain information from teachers. Seeking assistance from teachers was fostered in activities stressing manipulating and drawing, making behaviors. Activities emphasizing wandering, exploring and readying encouraged a greater proportion of children's requests for permission from teachers. Spontaneous expression of thoughts and feelings by children to teachers did not show much differentiation according to child behavior, except for being comparatively low during wandering, exploring.

Child to child communications. Table 78 shows that children's attempts to structure their own activities were highest during activities which encouraged large muscle activity and moderately high in activities stressing manipulating, readying, and performing, acting out. Association units in which children encouraged in others or themselves displayed cooperative peer relations were comparatively high during activities emphasizing wandering, exploring; eating; and drawing, making child behaviors. Activities stressing behaviors of drawing, making; vocal and instrumental expression; and waiting displayed the highest proportion of association units in which children sought objects from peers. Seeking information from other children was proportionately higher during watching, listening, and seeking activity with peers during nonactive; wandering, exploring; large muscle activity; and readying child behaviors. Children protected themselves or their activities proportionately more often from peers during activities stressing large muscle activity; performing, acting out; manipulating; and readying. Association units directed at aggressing against peers were highest while children were nonactive or waited. The greatest percentage of spontaneous expression of thoughts and feelings occurred during eating; drawing, making; and watching, listening.

Table 77

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO TEACHER ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR QUALITIES

Child Behavior	Prominent Association Unit Goals Having Child as Agent, Teacher as Target											
	Objects From		Information From		Assistance From		Activity With		Permission From		Spontaneous Expression	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Watching, Listening	3	3.0	16	16.0	16	16.0	2	2.0	5	5.0	30	30.0
Readying	22	13.4	19	11.6	21	12.8	5	3.0	19	11.6	39	23.8
Wandering, Exploring	2	2.6	16	20.8	14	18.2	6	7.8	11	14.3	13	16.9
Eating	38	27.1	15	10.7	12	8.6	0	0.0	7	5.0	41	29.3
Manipulating	2	2.1	5	5.2	24	24.7	6	6.2	6	6.2	33	34.0
Drawing, Making	9	9.9	11	12.1	20	22.0	1	1.1	3	3.3	28	30.8
Performing, Acting Out	4	7.4	1	1.9	5	9.3	2	3.7	4	7.4	16	29.6

NOTE. - Child behaviors of nonactive, waiting, vocal and instrumental expression, and large muscle activity were deleted from the analysis because they contained too few child to teacher association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 78

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR QUALITIES

Child Behavior	Prominent Association Unit Goals							
	Procedural Structuring		Peer Relations		Objects From		Information From	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Nonactive	0	0.0	2	3.3	2	3.3	4	6.7
Waiting	2	2.6	1	1.3	9	11.5	5	6.4
Watching, Listening	10	2.6	16	4.1	3	3.0	16	16.0
Readying	55	9.4	41	7.0	42	7.2	33	5.6
Wandering, Exploring	9	2.7	34	10.1	25	7.5	20	6.0
Eating	5	2.0	24	9.8	12	4.9	15	6.1
Manipulating	56	10.4	35	6.5	33	6.1	33	6.1
Drawing, Making	5	2.1	23	9.8	39	16.6	17	7.2
Vocal and Instrumental Expression	2	4.8	2	4.8	5	11.9	3	7.1
Performing Acting Out	48	9.0	18	3.4	40	7.5	21	3.9
Large Muscle Activity	65	23.4	12	4.3	10	3.6	6	2.2

Table 78 continued

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR QUALITIES

Having Child as Agent, Child as Target

Activity With		Activity, Self-protect		Aggress Against		Spontaneous Expression	
Freq.	%	Freq.	%	Freq.	%	Freq.	%
14	23.3	3	5.0	12	20.0	13	21.7
9	11.5	6	7.7	15	19.2	19	24.4
2	2.0	5	5.0	1	1.0	30	30.0
90	15.3	95	16.2	63	10.7	97	16.5
60	17.9	52	15.5	31	9.3	72	21.5
25	10.2	14	5.7	32	13.1	90	36.9
49	9.1	88	16.3	29	5.4	143	26.5
11	4.7	19	8.1	13	5.5	81	34.5
6	14.3	5	11.9	6	14.3	8	19.0
46	8.6	91	17.1	13	2.4	68	12.8
46	16.5	58	20.9	22	7.9	25	9.0

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Group Size

Teacher to child communications. Teachers' procedural-structuring and deviance control association units to children were proportionately greatest while activities were carried out as a total class group (see table 79). Deviance control also appeared to be proportionately high in the large cluster arrangement. It was lowest in the small cluster, pair, and single child arrangements.

Among teachers' direct action association units, cognitive inputs to children appeared highest in large cluster, small cluster and pair arrangements; social knowledge in total class, large and small clusters; cultural habits in total-class, pair, and single child; and physical inputs highest in pair groupings, but also accentuated by the single child arrangement.

Child to teacher communications. As table 80 indicates, children's attempts to seek objects from teachers were accentuated in total class group activities, whereas seeking permission or information from teachers was proportionately greater in single child activities. Seeking activity with and assistance from teachers did not show much differentiation among grouping arrangements, except that seeking assistance was relatively low in the total class group arrangement. Spontaneous expression of thoughts and feelings on the part of children to teachers was proportionately higher in the cluster and pair grouping constellations than in the total class group or single child.

Child to child communications. Table 81 shows that children's association units aimed at structuring their own activities were proportionately highest during small cluster and pair activities. Peer relations was slightly accentuated by the single child grouping arrangement. Children's attempts to protect themselves or activities from peers were proportionately highest in large cluster activities. They were also relatively high while children were in single child or small cluster arrangements. Association units in which children aggressed against peers were accentuated during total class group and large cluster activities. Attempts to obtain objects, information from and activity with other children and spontaneous expression of thoughts and feelings were not clearly differentiated among grouping arrangements.

Coordination of Children's Actions

Teacher to child communications. Teachers procedural-structuring association units to children were slightly higher during activities in which children's actions were simultaneously or reciprocally coordinated than when they were not coordinated

Table 79
FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION GROUP SIZE

Prominent Association Unit Goals Having Teacher as Agent, Child as Target	Group Size									
	Total Class		Large Cluster		Small Cluster		Pair		Single Child	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Procedural Structuring	570	45.3	197	37.9	108	35.8	53	29.8	101	35.3
Deviance Control	255	20.3	89	17.1	39	12.9	23	12.9	39	13.6
Cognitive	167	13.3	114	21.9	72	23.8	42	23.6	49	17.1
Recognition	31	2.5	16	3.1	10	3.3	5	2.8	13	4.5
Social Knowledge	54	4.5	21	4.0	17	5.6	1	0.6	5	1.7
Cultural Habits	53	4.2	10	1.9	3	1.0	6	3.4	13	4.5
Physical	42	3.3	20	3.8	8	2.6	27	15.2	25	8.7

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 80

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO TEACHER ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION GROUP SIZE

Prominent Association Unit Goals Having Child as Agent, Teacher as Target	Group Size									
	Total Class		Large Cluster		Small Cluster		Pair		Single Child	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Objects From	55	17.6	9	7.8	7	5.2	6	7.1	7	4.8
Information From	29	9.3	14	12.1	12	8.9	10	11.9	23	15.8
Assistance From	37	11.8	20	17.2	23	17.0	13	15.5	28	19.2
Activity With	5	1.6	2	1.7	5	3.7	3	3.6	7	4.8
Permission From	23	7.3	11	9.5	8	5.9	5	6.0	17	11.6
Spontaneous Expression	80	25.6	37	31.9	43	31.9	25	29.8	36	24.7

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

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Table 81

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION GROUP SIZE

Prominent Association Unit Goals Having Child as Agent, Child as Target	Group Size									
	Total Class		Large Cluster		Small Cluster		Pair		Single Child	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Procedural Structuring	48	4.6	25	6.2	112	12.4	77	12.2	7	1.9
Peer Relations	83	7.9	25	6.2	37	4.1	27	4.3	43	11.7
Objects From	62	5.9	82	10.4	75	8.3	44	7.0	33	9.0
Information From	78	7.4	17	4.2	40	4.4	34	5.4	28	7.7
Activity With	158	15.0	49	12.2	93	10.3	62	9.8	52	14.2
Activity, Self-protect	115	10.9	79	19.6	144	16.0	85	13.4	66	18.0
Aggress Against	125	11.9	48	11.9	39	4.3	33	5.2	24	6.6
Spontaneous Expression	241	22.9	72	17.9	166	18.4	152	24.0	80	21.9

NOTE.- The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

(see table 82). In contrast, deviance control was proportionately highest during noncoordination of children's actions. Cognitive inputs to children were accentuated by reciprocal coordination and physical inputs by simultaneous coordination. Teachers' recognition, social knowledge, and cultural habit units did not differentiate among action coordination possibilities.

Child to teacher communications. The frequency of child to teacher association units in activities which were simultaneously or reciprocally coordinated was too low to draw adequate conclusions.

Child to child communications. Children's attempts to structure their own activities were proportionately highest during activities in which their actions were reciprocally coordinated (see table 83). Seeking objects from peers was slightly higher during noncoordination of children's actions than during action coordination, and seeking activity with and aggressing against other children was highest during simultaneous and noncoordination action possibilities. Spontaneous expression of thoughts and feelings appeared proportionately highest during noncoordination of children's actions. Peer relations, seeking information, and activity, self-protection did not show much difference according to action coordination possibilities.

Teacher Leadership Pattern

Teacher to child communications. As table 84 indicates, teachers' association units aimed at controlling children's disruptive behavior were proportionately highest in activities in which the teacher leadership pattern was not in activity. Cognitive inputs to children were accentuated by the active leadership role, and cultural habit inputs by the watcher, helper role. Teachers' physical, recognition, and procedural structuring units did not show differential occurrence among the leadership patterns.

Child to teacher communications. As shown in table 85, attempts on the part of children to seek objects from teachers were highest in activities in which the teacher assumed a watcher, helper role. Seeking information and seeking permission from teachers were accentuated by both the not in activity and active leadership patterns, and seeking activity with teachers was slightly higher when the teacher was observed to be not in the child's activity. Spontaneous expression of thoughts and feelings by children to teachers was emphasized by activities in which teachers assumed the watcher, helper role. It was also proportionately high during active leadership.

Table 82

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

Prominent Association Unit Goals Having Teacher as Agent, Child as Target	Coordination of Children's Actions					
	Coordinated/ Simultaneous		Coordinated/ Reciprocal		Not Coordinated	
	Freq.	%	Freq.	%	Freq.	%
Procedural Structuring	74	46.8	73	44.0	882	39.7
Deviance Control	19	12.0	20	12.0	407	18.3
Cognitive	22	13.9	37	22.3	385	17.3
Recognition	3	1.9	4	2.4	68	3.1
Social Knowledge	4	2.5	4	2.4	92	4.1
Cultural Habits	2	1.3	3	1.8	80	3.6
Physical	24	15.2	5	3.0	93	4.2

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 83

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

Prominent Association Unit Goals Having Child as Agent, Child as Target	Coordination of Children's Actions					
	Coordinated/ Simultaneous		Coordinated/ Reciprocal		Not Coordinated	
	Freq.	%	Freq.	%	Freq.	%
Procedural Structuring	7	9.5	125	18.1	137	5.3
Peer Relations	4	5.4	26	3.8	185	7.1
Objects From	2	2.7	31	4.5	223	8.6
Information From	5	6.8	27	3.9	165	6.4
Activity With	11	14.9	62	9.0	341	13.2
Activity, Self-protect	9	12.2	88	12.7	392	15.1
Aggress Against	7	9.5	16	2.3	246	9.5
Spontaneous Expression	11	14.9	107	15.5	593	22.9

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 84

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

Prominent Association Unit Goals Having Teacher as Agent, Child as Target	Teacher Leadership Pattern					
	Not in Activity		Watcher, Helper		Active Leadership	
	Freq.	%	Freq.	%	Freq.	%
Procedural Structure	94	41.2	327	39.0	603	41.6
Deviance Control	61	26.8	156	18.6	229	15.8
Cognitive	13	5.7	122	14.6	299	20.6
Recognition	7	3.1	35	4.2	33	2.3
Social Knowledge	7	3.1	25	3.0	67	4.6
Cultural Habits	6	2.6	57	6.8	21	1.5
Physical	10	4.4	57	6.8	54	3.7

NOTE. - Teacher leadership pattern of participator was deleted from the analysis because it contained too few association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 35
FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO TEACHER ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

Prominent Association Unit Goals Having Child as Agent, Teacher as Target	Teacher Leadership Pattern					
	Not in Activity		Watcher, Helper		Active Leadership	
	Freq.	%	Freq.	%	Freq.	%
Objects From	4	3.1	55	14.3	22	8.8
Information From	21	16.0	29	7.6	37	14.8
Assistance From	20	15.3	66	17.2	35	14.0
Activity With	7	5.3	7	1.8	5	2.0
Permission From	15	11.5	21	5.5	26	10.4
Spontaneous Expression	25	19.1	124	32.3	66	26.4

NOTE. - Teacher leadership pattern of participator was deleted from the analysis because it contained too few association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 86

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

Prominent Association Unit Goals Having Child as Agent, Child as Target	Teacher Leadership Pattern					
	Not in Activity		Watcher, Helper		Active Leadership	
	Freq.	%	Freq.	%	Freq.	%
Procedural Structuring	172	10.8	60	5.4	34	5.6
Peer Relations	94	5.9	82	7.4	36	6.0
Objects From	114	7.1	98	8.8	40	6.6
Information From	83	5.2	72	6.5	41	6.8
Activity With	186	11.6	123	11.1	99	16.4
Activity, Self-protect	249	15.6	148	13.3	87	14.4
Aggress Against	89	5.6	106	9.5	74	12.3
Spontaneous Expression	330	20.6	270	24.3	104	17.2

NOTE.- Teacher leadership pattern of participator was deleted from the analysis because it contained too few association units to make adequate interpretations. The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Child to child communications. Attempts on the part of children to structure their own activities were proportionately greatest while teachers were not in activities. Seeking activity with other children was accentuated in activities in which teachers assumed active leadership. Children's spontaneous expressions of thoughts and feelings to peers were proportionately highest in activities in which teachers were watcher, helpers or not in the activity. Association units in which children encouraged in or manifested cooperativeness with peers, attempts to seek objects, information, or activity, self-protection from peers did not evidence any notable differentiation according to teacher leadership pattern.

Activity Initiation

Teacher to child communication. As table 87 indicates, teachers procedural-structuring association units to children were proportionately higher in teacher-initiated than in child-initiated activities. No other association unit goals from teachers to children showed any notable differentiation according to activity initiation.

Child to teacher communications. As table 88 shows, the only two child to teacher association unit goals influenced by activity initiation were attempts by children to seek objects from teachers, which were proportionately higher in teacher-initiated activities, and attempts by teachers to seek assistance from teachers, which were proportionately higher in child-initiated activities.

Child to child communications. Association units in which children structured their own activities and in which they protected themselves or their activities were higher during child-initiated activities (see table 89). Attempts to aggress against other children were proportionately higher during teacher-initiated activities. Activity initiation did not influence the occurrence of other prominent child to child association unit goals.

Summary

The analyses of association unit goals against activity dimension qualities suggests that activity structures can shape properties of social exchanges among individuals inhabiting activity settings.

Teacher to child communications. Teacher to child procedural-structuring goals were most prominent during organized group activities, transitions, resting, music, bodily maintenance activities of dressing and eating, playground

Table 87

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT TEACHER TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION ACTIVITY INITIATION

Prominent Association Unit Goals Having Teacher as Agent, Child as Target	Activity Initiation			
	Teacher Initiated		Child Initiated	
	Freq.	%	Freq.	%
Procedural Structuring	895	42.6	131	30.8
Deviance Control	373	17.8	71	16.7
Cognitive	355	16.9	82	19.2
Recognition	55	2.6	20	4.7
Social Knowledge	83	4.0	16	3.8
Cultural Habits	69	3.3	15	3.5
Physical	88	4.2	30	7.0

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 88

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO TEACHER ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION ACTIVITY INITIATION

Prominent Association Unit Goals Having Child as Agent, as Target	Activity Initiation			
	Teacher Initiated		Child Initiated	
	Freq.	%	Freq.	%
Objects From	72	13.5	12	4.7
Information From	60	11.3	27	10.6
Assistance From	70	13.2	50	19.7
Activity With	7	1.3	12	4.7
Permission From	45	8.5	19	7.5
Spontaneous Expression	144	27.1	75	29.5

NOTE. - The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

Table 89

FREQUENCY AND PERCENTAGE DISTRIBUTION OF PROMINENT CHILD TO CHILD ASSOCIATION UNIT GOALS AGAINST ACTIVITY DIMENSION ACTIVITY INITIATION

Prominent Association Unit Goals Having Child as Agent, Child as Target	Activity Initiation			
	Teacher Initiated		Child Initiated	
	Freq.	%	Freq.	%
Procedural Structuring	78	5.1	190	10.5
Peer Relations	113	7.4	101	5.6
Objects From	120	7.8	136	7.5
Information From	96	6.3	100	5.5
Activity With	207	13.5	205	11.3
Activity Self-protect	191	12.5	296	16.3
Aggress Against	183	11.9	86	4.7
Spontaneous Expression	342	22.3	368	20.3

NOTE.- The percentage scores do not add to 100 because of the deletion of infrequently occurring association unit goals.

activities, and situations in which children had to wait. In addition, when activities were arranged in a total class group, were simultaneously or reciprocally coordinated, and teacher-initiated, teachers expended greater effort on procedural-structuring matters.

Teachers attempts to control children's disruptive behavior were highest during media experiences, playground activities, transition periods, and bodily maintenance activities of washing, toileting, and eating. They were also high when children wandered, explored, or waited, when activities involved the total class group or a large cluster, when children's actions were not coordinated, and the teacher was not part of the activity.

Teachers' cognitive inputs to children were most prominent in table activities, book-related activities, and arts and crafts. Clusters and pairs of children, activities in which child behaviors were reciprocally coordinated and where the teacher was an active leader also encouraged teachers' cognitive association units.

Recognition of children's behavior and accomplishments was stressed during arts and crafts and resting. Teachers' social knowledge inputs were encouraged by dramatic play, book related activities, and activities which took place as a total class group or in clusters. Cultural habit association units were fostered by bodily maintenance activities of washing, toileting and eating, where children were part of a total class group, pair, or single child arrangement, and the teacher's role was one of watcher, helper. Dressing, playground activities, and music and children in pairs or alone in an activity encouraged teachers' physical goals

Child to teacher communications. Children were encouraged to seek objects from teachers when involved in eating, in total class group activities, when the teacher was a watcher - helper, and the activity teacher-initiated. They sought information most often in book-related activities where they watched and listened, in activities where they wandered and explored, in activities in which they were alone and the teacher was either not part of the activity or an active leader. Seeking assistance from teachers was most prominent during playground activities, table activities, arts and crafts, playground activities, and activities which were child initiated. Arts and crafts, child behaviors of wandering, exploring, and readying, the single child grouping arrangement, and leadership patterns in which the teacher was either not in the activity or an active leader fostered children's requests for permission. Children's spontaneous expressions to teachers were stressed in book-related, dramatic play, arts and crafts, media experiences, and eating activities and in situations in which children were arranged in clusters or pairs and the teacher was either a watcher,helper or active leader.

Child to child communications. Children tended to structure their own activities when engaged in organized group activities, playground activities, and child behaviors of large muscle activity, manipulating, and performing, acting out. Child to child procedural-structuring association units also occurred often when child grouping arrangements consisted of small clusters and pairs, when children's actions were reciprocally coordinated, when the teacher was not part of the activity, and it was child-initiated.

Cooperative peer relations were most often manifested by children in organized group activities, eating, arts and crafts, when children were engaged in wandering, exploring, and when they occupied the single child grouping arrangement.

Seeking objects from other children occurred most often in arts and crafts and book-related resources and in activities encouraging child behaviors of drawing, making, vocal and instrumental expression and waiting. Seeking information from other children was encouraged by media experiences and the corresponding child behavior of watching, listening. Seeking activity with other children was promoted during resting, during child behaviors of nonactive; wandering, exploring; large muscle activity, and readying. It was also fostered by simultaneous and noncoordination of children's actions and active teacher leadership. Spontaneous expression of thoughts and feelings among children were most prominent during eating, arts and crafts, animal and plant care, and activities in which children watched and listened. In addition, they were accentuated in activities in which the teacner was either not in the activity or a watcher, helper.

Children engaged in activity, self-protection from peers most often during block building, playground, and book-related activities and child behaviors of large muscle activity, performing, acting out; manipulating; and readying. In addition, the activity, self-protection goal was fostered by cluster and single child grouping arrangements and by child-initiated activities. Aggressing against children appeared most prominent during resting, music, and eating resources, in situations where children were either nonactive or waiting, in total class group and large cluster arrangements, in activities in which children's actions were either simultaneously or not coordinated and which were teacher-initiated.

RELATIONSHIP OF ACTIVITY QUALITIES TO METHOD COERCIVENESS AND RESPONSE CONGRUENCE

Utilization of Resources

Teacher to child communications. Activity resources which were high in teacher to child noncoercive methods included book-related, arts and crafts, and eating (see table 90). In reading, teachers' informing and in arts and crafts and eating, teachers' helping, giving were particularly high. Dramatic play, music, and resting excelled in preponderance of mildly coercive teacher influence attempts and media experiences, eating, washing, toileting, and transition were high in strongly coercive teacher methods.

Table 91 shows that book-related, block building, table activities, and dressing displayed the highest percentages of congruent responses on the part of children to teacher methods, and music, playground activities, media experiences, and transition fostered the highest proportion of children's noncongruent responses to teachers.

Child to teacher communications. Table 92 indicates that dramatic play was highest in child to teacher noncoercive methods and transition highest in mildly coercive methods. Of all resources, transition also displayed the highest proportion of teachers' noncongruent responses (see table 93). No notable differentiation among the activity resources appeared in strongly coercive child to teacher techniques.

Child to child communications. Activity resources in which children's influence attempts to peers were most noncoercive included music, eating and resting (see table 94). Mildly coercive methods were accentuated by organized group and playground activities, and strongly coercive methods by book-related and playground activities.

Children's responses to peers tended to be highly congruent during organized group activities, music, and animal and plant care. Noncongruence was accentuated during book-related and block building activities (see table 95).

Child Activity

Teacher to child communications. As indicated by table 96, teachers' noncoercive methods to children were stressed during activities encouraging child behaviors of drawing, making; watching, listening; and waiting. Mildly coercive teacher methods were accentuated during nonactive; performing, acting out; and large muscle activity child

Table 90

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY RESOURCES

	Methods Having Teacher as Agent, Child as Target					
	Non Coercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Book-Related	205	43.2	250	52.6	20	4.2
Block Building	13	29.5	30	68.2	1	2.3
Table Activities	149	29.3	335	65.8	25	4.9
Dramatic Play	30	23.4	91	71.1	7	5.5
Arts and Crafts	120	40.3	169	56.7	9	3.0
Organized Group Activities	29	26.4	74	67.3	7	6.4
Music	39	21.5	132	72.9	10	5.5
Playground Activities	18	26.1	46	66.7	5	7.2
Media Experience	20	19.4	66	64.1	17	16.5
Eating	102	38.1	136	50.7	30	11.2
Resting	11	21.6	38	74.5	2	3.9
Dressing	11	24.4	30	66.7	4	8.9
Washing, Toileting	12	24.0	32	64.0	6	12.0
Transition	337	25.0	864	64.0	149	11.0

Note. - Resources of animal and plant care were deleted from the analysis because they contained too few teacher to child methods to make adequate interpretations. Uncodable methods were deleted from the analysis.

Table 91

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO TEACHER METHODS AGAINST ACTIVITY RESOURCES

	Responses by Children to Teacher Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Book-Related	402	87.0	60	13.0
Block Building	36	90.0	4	10.0
Table Activities	409	85.0	72	15.0
Dramatic Play	104	82.5	22	17.5
Arts and Crafts	229	80.9	54	19.1
Organized Group Activities	95	86.4	15	13.6
Music	134	75.7	43	24.3
Playground Activities	52	77.6	15	22.4
Media Experiences	77	75.5	25	24.5
Eating	212	81.2	49	18.8
Resting	43	84.3	8	15.7
Dressing	40	88.9	5	11.1
Washing, Toileting	39	83.0	8	17.0
Transition	1053	79.3	275	20.7

Note. - Resources of animal and plant care were deleted from the analysis because they contained too few teacher to child responses to teacher methods to make adequate interpretations. Uncodable responses were deleted from the analysis.

Table 92

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO TEACHER METHOD COERCIVENESS AGAINST ACTIVITY RESOURCES

	Methods Having Child as Agent, Teacher as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Book-Related	33	53.2	27	43.5	2	3.2
Table Activities	36	45.6	41	51.9	2	2.5
Dramatic Play	39	61.9	22	34.9	2	3.2
Arts and Crafts	57	50.0	57	50.0	0	0.0
Eating	72	47.1	75	49.0	6	3.9
Transition	100	35.3	175	61.8	8	2.8

Note. - Resources of block building, organized group activities, music, animal and plant care, playground activities, media experiences, resting, dressing, and washing, toileting were deleted from the analysis because they contained too few child to teacher methods to make adequate interpretations. Uncodable methods were deleted from the analysis.

Table 93

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY RESOURCES

	Responses by Teachers to Children			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Reading	39	66.1	20	33.9
Table Activities	52	69.3	23	30.7
Dramatic Play	39	66.1	20	33.9
Arts and Crafts	69	66.3	35	33.7
Eating	96	67.1	47	32.9
Transition	166	59.5	113	40.5

Note. - Resources of block building, organized group activities, music, animal and plant care, playground activities, media experiences, resting, dressing, and washing, toileting were deleted from the analysis because they contained too few child responses to teacher methods to make adequate interpretations. Uncodable responses were deleted from the analysis.

Table 94

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY RESOURCES

	Methods Having Child as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Book-related	63	33.2	63	33.2	64	33.7
Block Building	43	36.1	48	40.3	28	23.5
Table Activities	169	41.2	146	35.6	95	23.2
Dramatic Play	268	43.9	220	36.1	122	20.0
Arts and Crafts	138	45.7	116	38.4	48	15.9
Organized Group Activities	29	44.6	27	41.5	9	13.8
Music	39	49.4	18	22.8	22	27.8
Animal and Plant Care	33	36.7	33	36.7	24	26.7
Playground Activities	67	24.4	123	44.7	85	30.9
Media Experiences	94	45.0	74	35.0	41	19.6
Eating	155	56.4	67	24.4	53	19.3
Resting	34	48.6	17	24.3	19	27.1
Transition	412	36.5	386	34.2	332	29.4

Note. - Resources of dressing and washing, toileting were deleted from the analysis because they contained too few child to child methods to make adequate interpretations. Uncodable methods were deleted from the analysis.

Table 95

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY RESOURCES

	Methods Having Child as Agent, Child as Target			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Book Related	105	56.5	81	43.5
Block Building	63	53.8	54	46.2
Table Activities	249	61.6	155	38.4
Dramatic Play	368	62.0	226	38.0
Arts and Crafts	170	57.8	124	42.2
Organized Group Activities	52	78.8	14	21.2
Music	55	70.5	23	29.5
Animal and Plant Care	68	78.2	19	21.8
Playground Activities	162	60.2	107	39.8
Media Experiences	139	66.5	70	33.5
Eating	172	63.5	99	36.5
Resting	39	56.5	30	43.5
Transition	664	59.8	447	40.2

Note. - Resources of dressing and washing, toileting were deleted from the analysis because they contained too few child to child responses to make adequate interpretations. Uncodable responses were deleted from the analysis.

Table 96

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR

	Methods Having Teacher as Agent, Child as Target					
	Noncoercive		Mildly coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Nonactive	11	21.6	38	74.5	2	3.9
Waiting	33	37.9	44	50.6	10	11.5
Watching, Listening	278	38.2	413	56.7	37	5.1
Readying	280	24.6	743	65.2	116	10.2
Wandering, Exploring	28	21.7	78	60.5	23	17.8
Eating	102	38.1	136	50.7	30	11.2
Manipulating	143	26.9	351	66.1	37	7.0
Drawing, Making	106	40.2	149	56.4	9	3.4
Vocal and Instrumental Expression	25	29.4	55	64.7	5	5.9
Performing, Acting Out	49	21.1	170	73.3	13	5.6
Large Muscle Activity	30	22.4	96	71.6	8	6.0

Note. - Uncodable responses were deleted from the analysis.

behaviors, and strongly coercive methods during wandering, exploring.

Children's responses to teachers were most congruent during nonactive; watching, listening; manipulating; and large muscle activity and noncongruent during waiting and performing, acting out (see table 97).

Child to teacher communications. Children's influence attempts directed to teachers showed the greatest tendency to be noncoercive in activities encouraging the child behavior of performing, acting out (see table 98). Mildly coercive techniques on the part of children to teachers were proportionately highest during readying and wandering, exploring, and strongly coercive methods slightly higher during watching, listening than other child behaviors.

As table 99 shows, readying revealed a higher proportion of teachers' noncongruent responses to children's methods than any other child behavior.

Child to child communications. As indicated by table 100 activities stressing the nonactive child behavior encouraged the greatest proportion of noncoercive child to child methods; drawing, making and large muscle activity the greatest percentage of mildly coercive methods, and waiting the greatest percentage of strongly coercive methods.

As indicated in table 101, vocal and instrumental expression stressed the greatest proportion of congruent responses on the part of children to their peers, whereas nonactive; waiting; drawing, making; and large muscle activity stressed the greatest percentage of noncongruent responses.

Group Size

Teacher to child communications. No notable differences appeared in coerciveness of teacher methods and congruence of child responses according to group size of the activity.

Child to teacher communications. Table 102 indicates that noncoercive child methods to teachers were accentuated in large and small cluster activities and mildly coercive methods in total class group and single child activities. Strongly coercive child methods to teachers were slightly greater in total class groups and pairs as compared with the remaining grouping arrangements.

Table 103 indicates that as group size decreased, teachers' congruent responses to child methods increased and noncongruent responses decreased, indicating that the smaller the group size, the better were children's desires satisfied by teachers.

Table 97

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO TEACHER METHODS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR

	Child Responses to Teacher Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Nonactive	43	84.3	8	15.7
Waiting	66	75.9	21	24.1
Watching, Listenibg	615	86.5	96	13.5
Readying	887	79.3	231	20.7
Wandering, Exploring	105	82.0	23	18.0
Eating	212	81.2	49	18.8
Manipulating	425	84.8	76	15.2
Drawing, Making	199	79.6	51	20.4
Vocal and Instrumental Expression	65	79.3	17	20.7
Performing, Acting Out	172	74.8	58	25.2
Large Muscle Activity	109	84.5	20	15.5

Note. - Uncodable responses were deleted from the analysis.

Table 98

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO TEACHER METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR

	Methods Having Child as Agent, Teacher as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Watching, Listening	48	43.2	56	50.5	7	6.3
Readying	61	35.1	107	61.5	6	3.4
Wandering, Exploring	29	33.0	59	67.0	0	0.0
Eating	72	47.1	75	49.0	6	3.9
Manipulating	50	47.6	53	50.5	2	1.9
Drawing, Making	50	48.5	53	51.5	0	0.0
Performing, Acting Out	40	62.5	22	34.4	2	3.1

Note. - Child behaviors of nonactive, waiting, vocal and instrumental expression, and large muscle activity were deleted from the analysis because they contained too few child to teacher methods to make adequate interpretations. Uncodable responses were deleted from the analysis.

Table 99

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR

	Teacher Responses to Child Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Watching, Listening	69	64.5	38	35.5
Readying	91	53.2	80	46.8
Wandering, Exploring	60	68.2	28	31.8
Eating	96	67.1	47	32.9
Manipulating	69	69.0	31	31.0
Drawing, Making	61	65.6	32	34.4
Performing Acting out	41	68.3	19	31.7

Note. - Child behaviors of nonactive, waiting, vocal and instrumental expression, and large muscle activity were deleted from the analysis because they contained too few responses by teachers to children to make adequate interpretations. Uncodable responses were deleted from the analysis.

Table 100

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR

	Methods Having Child as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Nonactive	34	48.6	17	24.3	19	27.1
Waiting	36	40.4	19	21.3	34	38.2
Watching, Listening	183	39.4	160	34.5	121	26.1
Readying	231	35.1	237	36.0	190	28.9
Wandering, Exploring	148	38.3	129	33.4	109	28.2
Eating	155	56.4	67	24.4	53	19.3
Manipulating	258	41.2	224	35.8	144	23.0
Drawing, Making	125	45.1	109	39.4	43	15.5
Vocal and Instrumental Expression	19	38.8	15	30.6	15	30.6
Performing Acting Out	285	44.5	226	35.3	130	20.3
Large Muscle Activity	76	22.8	150	44.9	108	32.3

Note. - Uncodable methods were deleted from the analysis.

Table 101

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY DIMENSION CHILD BEHAVIOR

	Child Responses to Child Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Nonactive	39	56.5	30	43.5
Waiting	52	59.8	35	40.2
Watching, Listening	288	62.6	172	37.4
Readying	398	61.5	249	38.5
Wandering, Exploring	214	56.3	166	43.7
Eating	172	63.5	99	36.5
Manipulating	380	61.8	235	38.2
Drawing, Making	156	58.0	113	42.0
Vocal and Instrumental Expression	36	73.5	13	26.5
Performing, Acting Out	385	61.8	238	38.2
Large Muscle Activity	191	58.2	137	41.8

Note. - Uncodable responses were deleted from the analysis.

Table 102

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO TEACHER METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION GROUP SIZE

	Methods Having Child as Agent, Teacher as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Total Class	142	41.0	187	54.0	17	4.9
Large Cluster	68	54.4	55	44.0	2	1.6
Small Cluster	75	51.7	68	46.9	2	1.4
Pair	45	47.4	46	48.4	4	4.2
Single Child	54	32.5	110	66.3	2	1.2

Note. - Uncodable methods were deleted from the analysis.

Table 103

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY DIMENSION GROUP SIZE

	Teacher Responses to Child Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Total Class Group	189	57.1	142	42.9
Large Cluster	79	64.8	43	35.2
Small Cluster	84	65.1	45	34.9
Pair	63	68.5	29	31.5
Single Child	116	70.7	48	29.3

Note. - Uncodable responses were deleted from the analysis.

Child to child communications. As indicated in table 104 noncoercive methods among children were accentuated by total class group, pairs, and single child arrangements; mildly coercive methods by small clusters and pairs; and strongly coercive methods by the large cluster grouping arrangement.

Total class group, small clusters, and pairs encouraged the greatest proportion of congruent responses by children to peers, while large cluster and single child activities stressed the greatest proportion of noncongruent responses (see table 105.

Coordination of Children's Actions

Teacher to child communications. Table 106 shows that as activities moved from simultaneous to reciprocal to noncoordination of children's actions, noncoercive methods on the part of teachers to children increased and mildly coercive methods decreased.

Children's responses to teachers were proportionately more congruent during activities which were reciprocally coordinated and more noncongruent during activities which encouraged simultaneous or noncoordination of children's actions (see table 107).

Child to teacher communications. Too few interactions initiated by children to teachers occurred in during activities which fostered simultaneous or reciprocal coordination of children's actions to draw adequate conclusions.

Child to child communications. Table 108 indicates that children's methods directed to peers were proportionately more noncoercive in activities which were simultaneously coordinated, mildly coercive in activities which were reciprocally coordinated, and strongly coercive in activities which were not coordinated.

Congruent responses on the part of children to classmates were accentuated by simultaneous and reciprocal action coordination in activities (see table 109). Activities stressing noncoordination of children's actions encouraged a greater proportion of noncongruent responses.

Teacher Leadership Pattern

Teacher to child communications. Table 110 indicates that teacher leadership roles of watcher,helper and active leadership encouraged noncoercive methods on the part of teachers to children, whereas the not in activity leadership pattern fostered teachers' strongly coercive methods.

Table 104

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION GROUP SIZE

	Methods Having Child as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Total Class	533	44.6	363	30.4	300	25.1
Large Cluster	151	32.4	156	33.5	159	34.1
Small Cluster	395	36.8	425	39.6	252	23.5
Pair	326	42.8	292	38.4	143	18.8
Single Child	168	40.5	130	31.3	117	28.2

Note. - Uncodable methods were deleted from the analysis.

Table 105

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY DIMENSION GROUP SIZE

	Child Responses to Child Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Total Class Group	738	62.4	444	37.6
Large Cluster	250	54.2	211	45.8
Small Cluster	646	62.1	395	37.9
Pair	489	66.1	251	33.9
Single Child	223	54.0	190	46.0

Note. - Uncodable responses were deleted from the analysis.

Table 106

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

	Methods Having Teacher as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Coordinated/ Simultaneous	45	21.3	155	73.5	11	5.2
Coordinated/ Reciprocal	59	25.9	153	67.1	16	7.0
Not Coordinated	996	30.6	1993	61.2	266	8.2

Note. - Uncodable methods were deleted from the analysis.

Table 107

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO TEACHER METHODS AGAINST ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

	Teacher Responses to Child Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Coordinated/ Simultaneous	160	77.7	46	22.3
Coordinated/ Reciprocal	203	91.9	18	8.1
Not Coordinated	2573	81.3	593	18.7

Note. - Uncodable responses were deleted from the analysis.

Table 108

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

	Methods Having Child as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Coordinated/ Simultaneous	44	51.8	24	28.1	17	20.0
Coordinated/ Reciprocal	361	42.1	361	42.1	136	15.9
Not Coordinated	1168	39.4	981	33.1	818	27.6

Note. - Uncodable methods were deleted from the analysis.

Table 109

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD RESPONSE CONGRUENCE TO CHILD METHODS AGAINST ACTIVITY DIMENSION COORDINATION OF CHILDREN'S ACTIONS

	Child Responses to Child Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Coordinated/ Simultaneous	56	67.5	27	32.5
Coordinated/ Reciprocal	572	68.4	264	31.6
Not Coordinated	1718	58.9	1200	41.1

Note. - Uncodable responses were deleted from the analysis.

Table 110

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

	Methods Having Teacher as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Not in Activity	64	22.6	181	64.0	38	13.4
Watcher, Helper	365	31.3	705	60.5	95	8.2
Active Leadership	655	29.8	1386	63.0	159	7.2

Note. - Teacher leadership pattern of participator was deleted from the analysis because it contained too few teacher to child methods to make adequate interpretations. Uncodable methods were deleted from the analysis.

The congruence of children's responses to teachers did not differ according to teacher leadership roles.

Child to teacher communications. Children's noncoercive methods to teachers were accentuated in activities in which the teacher was a watcher, helper (see table 111). Mildly coercive methods were stressed by teacher leadership patterns of not in activity and active leadership.

Teachers' response congruence to child-initiated methods did not differ with respect to their leadership roles.

Child to child communications. Children's mildly coercive methods to peers were accentuated in activities in which the teacher was not in the activity, whereas strongly coercive child to child methods were encouraged by activities in which the teacher assumed active leadership (see table 112).

Children's response congruence to peers did not differ with respect to activity teacher leadership pattern.

Activity Initiation

Teacher to child communications. Neither teachers' method coerciveness or children's response congruence differed according to activity initiation characteristics.

Child to teacher communications. Although children's methods directed to teachers showed no differences in coerciveness according to activity initiation, table 113 shows that teachers' responses to children tended to be proportionately more congruent when activities were child-initiated than teacher-initiated.

Child to child communications. Table 114 indicates that children's methods to peers were proportionately more mildly coercive in child-initiated activities and more strongly coercive in teacher-initiated activities.

No notable differences in children's response congruence to peers with respect to activity initiation appeared.

Summary

The tabular analysis of method and response characteristics against activity qualities suggests ways in which activities shape method and response properties.

Among teacher to child communications, book-related activities, arts and crafts, eating, and activities stressing waiting, noncoordination of children's actions and the

Table 111

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO TEACHER METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

	Methods Having Child as Agent, Teacher as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Not in Activity	56	36.6	90	58.8	7	4.6
Watcher, Helper	204	48.3	205	48.6	13	3.1
Active Leadership	101	37.7	160	59.7	7	2.6

Note. - Teacher leadership pattern of participator was deleted from the analysis because it contained too few child to teacher methods to make adequate interpretations. Uncodable methods were deleted from the analysis.

Table 112

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION TEACHER LEADERSHIP PATTERN

	Child Responses to Child Methods					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Not in Activity	755	39.9	701	37.1	434	23.0
Watcher, Helper	538	41.7	433	33.6	318	24.7
Active Leadership	259	37.7	217	31.6	211	30.7

Note. - Teacher leadership pattern of participator was deleted from the analysis because it contained too few child to child methods to make adequate interpretations. Uncodable methods were deleted from the analysis.

Table 113

FREQUENCY AND PERCENTAGE DISTRIBUTION OF TEACHER RESPONSES TO CHILD METHODS AGAINST ACTIVITY DIMENSION ACTIVITY INITIATION

	Child Responses to Teacher Methods			
	Congruent		Noncongruent	
	Freq.	%	Freq.	%
Teacher-Initiated	342	61.3	216	38.7
Child-Initiated	182	67.2	89	32.8

Note. - Uncodable responses were deleted from the analysis.

Table 114

FREQUENCY AND PERCENTAGE DISTRIBUTION OF CHILD TO CHILD METHOD COERCIVENESS AGAINST ACTIVITY DIMENSION ACTIVITY INITIATION

	Methods Having Child as Agent, Child as Target					
	Noncoercive		Mildly Coercive		Strongly Coercive	
	Freq.	%	Freq.	%	Freq.	%
Teacher-Initiated	726	41.7	549	31.5	467	26.8
Child-Initiated	844	39.1	810	37.5	504	23.4

Note. - Uncodable methods were deleted from the analysis.

watcher, helper and active leadership roles encouraged noncoercive methods on the part of teachers. Mildly coercive methods were fostered by dramatic play, music, resting, large muscle activity, and simultaneous and reciprocal coordination of children's actions. Strongly coercive teacher methods occurred proportionately more often during media experiences, washing, toileting, transitional wandering, exploring, and activities in which the teacher was not present.

Cooperative child responses to teachers were fostered by book-related, block building, and table activities and activities encouraging large muscle activity and reciprocal coordination of children's actions. A greater proportion of noncongruent responses on the part of children to teachers occurred during music, playground activities, media experiences, transition, child behaviors of waiting and performing, acting out and simultaneous and noncoordination of children's actions.

Among communications initiated by children to teachers, dramatic play, large and small cluster activities, and the watcher, helper teacher leadership role fostered noncoercive methods. Readying and wandering, exploring transitions, total class group and single child activities, and activities in which the teacher was not present or an active leader encouraged mild coercion on the part of children to teachers. Strongly coercive methods were accentuated during watching, listening and total class and pair grouping arrangements.

The larger the group size of the activity, the less congruent teachers' responses to children became. In addition, teacher-initiated activities fostered a greater proportion of noncongruent responses than child-initiated activities.

Noncoercive communications among children were emphasized by music, eating, and resting resources; total class, pair, and single child grouping arrangements; and simultaneous action coordination in activities. Mildly coercive methods were accentuated by organized group, playground activities, drawing, making, large muscle activity; small cluster and pair grouping arrangements; reciprocal coordination of children's actions, activities in which the teacher was not present and when the activity was child-initiated. Strong coercion occurred proportionately more often in book-related, playground activities; waiting; activities which were not coordinated and which the teacher initiated and actively led.

Children's responses to peers tended to be most congruent during organized group, music, and animal and plant care; during total class group, small cluster and pair activities; and simultaneous and reciprocal coordination of children's actions. Responses were most noncongruent during book-related and block building activities; nonactive, waiting, drawing making, and large muscle activity; in large cluster and single child grouping arrangements; and activities in which children's actions were not coordinated.

Part III

In Part III, the effects of personal characteristics of children (age, sex, and social class) upon activity and social interaction characteristics are reported.

The specific questions under investigation were:

1. What are the effects of age, sex, and social class upon activity dimension qualities experienced by children?

2. What influence do age, sex, and social class of children have upon goals and specificity of association units received from teachers and goals of units directed to teachers and other children?

3. What is the influence of age, sex, and social class upon verbalness and coerciveness of methods received from teachers and sent to teachers and other children?

4. What effects do age, sex, and social class have upon verbalness and coerciveness of responses by children to teachers, by teachers to children, and by children to other children?

To answer these questions, the following individual child indexes were entered into the analysis of variance design described in the method section of this report: (1) cumulative time spent in activity dimension qualities; (2) percentage distributions of a) association unit goal and specificity characteristics; b) method verbalness and coerciveness characteristics; and c) response verbalness and congruence properties. Each of these percentage distributions was computed separately for communications from (1) teacher to observed child; (2) observed child to teacher; (3) child to observed child; and (4) observed child to child.

RELATIONSHIP OF PERSONAL CHARACTERISTICS OF CHILDREN TO ACTIVITY DIMENSION QUALITIES

Age

The analysis of variance findings (see table 115) indicated that older children spent significantly more time in activity resources of block building, dramatic play, arts and crafts, eating, and washing and more time in activities encouraging child behaviors of drawing, making; performing, acting out; and large muscle activity. Younger children spent significantly more time in transition and manipulative activities.

Table 115

ANALYSIS OF VARIANCE SIGNIFICANT AGE EFFECTS ON CUMULATIVE TIME SPENT IN ACTIVITY DIMENSION QUALITIES

Activity Dimension Quality	Young $\bar{X}$ Cum. Time[1]	Older $\bar{X}$ Cum. Time[1]	F Ratio
Utilization of Resources			
Block Building	37	91	6.9**
Dramatic Play	268	307	4.7*
Arts and Crafts	247	306	6.9**
Eating	246	416	32.0**
Washing, Toileting	26	49	5.4*
Transition	1114	1071	17.2**
Child Behavior			
Manipulating	536	518	6.2**
Drawing, Making	221	272	6.1*
Performing, Acting Out	353	371	4.6*
Large Muscle Activity	185	235	5.0*
Group Size			
Total Class	1306	1559	69.4
Small Cluster	606	617	7.8**
Single Child	638	555	7.1**
Coordination of Children's Actions			
Coordinated/ Reciprocal	328	428	10.7**
Not Coordinated	3107	3049	208.5**
Teacher Leadership Pattern			
Not in Activity	1162	1149	20.3**
Watcher, Helper	1153	1324	38.0**
Active Leadership	1246	1081	9.9**
Activity Initiation			
Teacher-Initiated	2334	2172	66.7**
Child-Initiated	1233	1415	59.7**

Note. - DF = 1 and 74

[1] Cumulative time is given in seconds.

* P .05.

** p .01.

Older children also spent significantly more time in total class group, and small cluster grouping arrangements, whereas younger children spent significantly more time in single child activities. While older children engaged in more activities stressing reciprocal coordination of children's actions, younger children spent more time in activities which were not coordinated. The watcher, helper teacher role was significantly more prevalent for older children, whereas the active teacher leadership role was greater for younger children. In addition, younger children spent significantly more time in teacher-initiated activities than did older children.

Sex

The only influence of sex of child upon activity dimension qualities was on the amount of time spent in block building. Boys spent significantly more time in this activity resource than did girls.

Social Class

Table 116 indicates that middle class children spent significantly more time in book-related activities, table activities, animal and plant care, and transition, whereas lower class children spent significantly more time in the eating situation. The findings on child behaviors encouraged by activities additionally reveal that waiting; watching, listening; wandering, exploring; and manipulating were significantly greater for middle class children, while readying was greater for lower class children.

Whereas lower class children spent significantly more time in the total class group arrangement, middle class children excelled significantly in the amount of time spent in all other grouping arrangements -- cluster, pair, and single child. Middle class children spent significantly more time in activities which were simultaneously or reciprocally coordinated, whereas lower class children spent more time in noncoordinated activities. Activities in which the teacher was not in the activity consumed significantly more time for middle class children, whereas activities in which the teacher was an active leader consumed more time for lower class children. Middle class children spent significantly more time in child-initiated activities than did lower class children.

Table 116

ANALYSIS OF VARIANCE SIGNIFICANT SOCIAL CLASS EFFECTS ON CUMULATIVE TIME SPENT IN ACTIVITY DIMENSION QUALITIES

Activity Dimension Quality	Middle Social Class $\bar{X}$ Cum. Time[1]	Lower Social Class $\bar{X}$ Cum. Time[1]	F Ratio
Utilization of Resources			
Book-related	342	254	9.95**
Table Activities	468	289	18.22**
Animal and Plant Care	84	0	10.31**
Eating	171	595	30.5**
Transition	1181	959	35.2**
Child Behavior			
Waiting	132	71	8.1**
Watching, Listening	663	568	12.9**
Readying	639	727	4.2**
Wandering, Exploring	417	150	27.2**
Eating	171	595	30.5**
Manipulating	606	412	21.0**
Group Size			
Total Class	1037	1976	14.5**
Large Cluster	702	301	53.6**
Small Cluster	618	606	5.2*
Pair	487	292	21.0**
Single Child	705	425	27.6**
Coordination of Children's Actions			
Coordinated/Simultaneous	155	118	3.7*
Coordinated/Reciprocal	393	381	3.6*
Not Coordinated	3052	3101	135.9**
Teacher Leadership Pattern			
Not in Activity	1403	807	89.2**
Active Leadership	1110	1199	8.7**
Activity Initiation			
Teacher-Initiated			
Child-Initiated	1604	978	126.6**

Note. - DF = 1 and 74.

[1] Cumulative time is given in seconds.

* p .05.

** p .01.

RELATIONSHIP OF PERSONAL CHARACTERISTICS OF CHILDREN TO ASSOCIATION UNIT QUALITIES

Age

In total frequency and percentage scores, older children sent significantly more communications to other children and teachers and received significantly more association units from peers than did younger children. Lower class children excelled significantly in the frequency and percentage of units received from teachers.

The findings on association unit goal qualities revealed that teachers directed proportionately more procedural-structuring units to older than younger children. Younger children displayed a significantly greater proportion of association units in which they sought assistance from teachers than older children. Whereas older children revealed a significantly higher percentage of attempts to seek objects from peers and of spontaneous expression of thoughts and feelings to peers, younger children sought information from their classmates proportionately more often.

Teachers' association unit specificity showed no relationship to age of target children.

Sex

No sex differences appeared in the total frequency or percentage of occurrence of agent to target association unit possibilities.

When association unit goals were examined, several sex differences did appear. Girls sought proportionately more assistance and permission from other children than boys, and girls were recipients of proportionately more affection, comfort units from other children than boys. Boys were higher than girls in the percentage of units in which they aggressed against peers, and they also were recipients of a higher percentage of deviance control units from teachers than girls.

Teachers' association unit specificity showed no relationship to sex of target children.

Social Class

No social class differences occurred in the total frequency or percentage of occurrence of agent to target association unit possibilities.

The findings on association unit goal qualities indicated only one significant difference, that middle class children sought proportionately more assistance from other children than lower class children.

In addition, teachers sent a significantly greater percentage of single specificity association units to lower class children than they did to middle class children.

RELATIONSHIP OF PERSONAL CHARACTERISTICS OF CHILDREN TO METHOD QUALITIES

Age

Although age showed no significant effects on specific method categories, on the broad method categories, older children evidenced a significantly greater percentage of strongly coercive methods to teachers and to other children. No significant effects of age on verbalness of method appeared.

Sex

Girls revealed a significantly greater percentage of requests to other children, while boys received significantly more blocks from other children, initiated more attacks, and sent a greater percentage of strongly coercive methods to peers in general.

Girls evidenced a significantly greater and boys a significantly smaller percentage of verbal methods directed to peers.

Social Class

Social class showed no effects on coerciveness or verbalness of methods.

RELATIONSHIP OF PERSONAL CHARACTERISTICS OF CHILDREN TO RESPONSE QUALITIES

Age

Response congruence was unaffected by age of the observed child. The only significant finding which appeared indicated that older children evidenced a greater proportion of verbal responses and younger children a greater proportion of nonverbal responses to peers.

Sex

There were no significant effects of sex on response characteristics.

Social Class

The only significant influence of social class upon response qualities was that teachers evidenced a greater proportion of verbal responses to middle class children and a greater proportion of nonverbal responses to lower class children.

DISCUSSION

This research sought concepts and methods by which preschool activities could be described. Using theory and techniques drawn from ecological psychology, an observational system was designed so that the environments of six nursery school and day care settings could be examined in terms of the structure and quality of activity units. The activity unit designation made it possible to explore the relationships between teacher and pupil social behavior and activity unit qualities in order to find out whether aspects of preschool activities made any difference in teachers' and children's interactions with one another.

Collection of data on classroom social interaction disclosed for study the goal-directed qualities of children's and teachers' social behavior; the means by which inhabitants of the environment exerted pressure upon one another; and the ways in which they responded to each other's desires.

The final section of the report draws together the major insights and findings of the investigation and summarizes what has been learned from the research effort.

Commonalities among the Preschool Settings

Although the results of this study demonstrate conspicuous differences among preschool environments in activity qualities, they also create a picture of what are common, perhaps even inevitable aspects of school life for very young children.

Preschool settings participating in this study were centers of great activity variety. From sixty-one to one hundred thirty-three different activity patterns were observed in each of the six environments. Small clusters of children dramatizing experiences at home, at the doctor's office, or creating a make-believe world of animals, cowboys, and Indians; clusters or total class groups of children gathered around the teacher for a story; and transitional periods in which individual children wandered about and explored or large groups cleaned up or prepared material for a new activity were prevalent experiences in these classrooms.

Children were active participants in classroom activities. Seldom were they observed in activity settings which required that they be nonactive or wait. However, only a small fraction of the activities demanded that children be socially interdependent. For the most part, behaviors intrinsic to the activities did not involve coordination of children's actions. In addition, there was a relatively low incidence of child to child association units having the core action goal (5 per cent), indicating that communications among children were seldom part of the standing pattern of behavior of activities. This is in contrast to Gump's (1967) findings that elementary school activities are socially interdependent fifty per cent of the time. The preschool activities witnessed in this study were individual endeavers.

Like teachers in elementary school classrooms studied by Gump (1967), the teachers of preschool children in this investigation did not find the participator leadership pattern to be a comfortable role. They seldom entered children's activities as participators. Although the proportion of time teachers spent as watcher, helpers or activity directors varied considerably from classroom to classroom, all teachers spent far less time (from 23 to 37 per cent) as activity leaders than is true in a typical elementary school setting, where the teacher assumes the central role in activities for sixty per cent of the school day (see Gump, 1967).

The finding that in five of the six participant settings approximately thirty per cent of the observation time was spent in transitions (in the Community Day Care Center, the percentage of time was twenty per cent) and in all settings, transitions consumed more time than any other activity resource, deserves special attention.[1] Transitions were just as pervasive in the Montessori Nursery School, the environment with least teacher-initiated, teacher-directed and most independent child activities, as they were in Head Start, which evidenced the most large group, teacher organized and structured activities. This finding suggests that allocation of a third to a fifth of classroom time to passage between one activity and the next may be an unavoidable, even necessary part of preschool life.

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[1] In the pilot study which applied this observational system to the study of activities in a preschool program for disadvantaged children, transition also consumed 30 per cent of the classroom time. This research is reported by Laura E. Berk and Minnie P. Berson in "Acting, Interacting, and Responding in the Nursery School -- An Analysis of Observed Activities in a Preschool Classroom," Paper Presented at the National Association for the Education of Young Children Meeting, Minneapolis, November, 1971.

Settings differed in the extent to which transitions involved wandering, exploring or readying behaviors. In the Montessori School and in the Franchise Day Care Center, environments which were relatively low in readying behaviors, more time was devoted to wandering and exploring. In these settings, children used the proportion of time not devoted to activity preparation and cleanup to disengage themselves from activities in order to examine and explore their surroundings. The fact that transition time was so constant in all but one of the settings indicates that a certain proportion of "time out" from immersion in activities is a psychological necessity for young children. If it is not provided by setting-up and clean-up periods as part of their daily experiences, children will seek this time out by detaching themselves from activities and exploring the environment.

All of the interviewed teachers in this study ranked transition periods as relatively low in terms of activity preferences in the classroom. They viewed transitions as wasted time and effort, with little constructiveness and purpose. Activity absorption on the part of children was the ideal; what happened in between these periods of intense involvement was seen as lost value in transitions, yet devoted more time to them than any other activity resource, lends increasing support to the notion that the reduction of transition periods would be a difficult, if not impossible, preschool curricular goal. The interview results also strongly suggest that the purpose of transitions needs to be clarified for teachers of young children and that not only the activities themselves, but what children do with their time while not directly involved in activities, needs to be considered a legitimate part of the nursery school curriculum.

The findings on social interaction indicated that the largest proportion (40 per cent) of teachers' communications to children were devoted to procedural matters. The six settings did not differ from one another to as great an extent as one might expect, considering the variation which occurred among the environments in the prevalence of teacher-directed versus child-dominated activities. Environments such as Montessori and Laboratory Nursery School Classroom Number 1, where teachers spent much time not in children's activities, still required that teachers devote more effort to procedural matters than to any other association unit goal. Contrary to what some might expect, this study indicates that the more open, less teacher-directed activity environments for young children did not reduce the prevalence of the teacher management function in the classroom.

Although environments differed in teachers relative emphasis upon cognitive and social association unit goals, both of these broad categories were more prevalent than emphasis upon physical accomplishments of children. Teachers placed only about half as much effort upon the cognitive, social, and physical areas (an overall 33.9 per cent of association units fell into these categories) as they did upon the management function (62.6 per cent).

In all but one environment (Franchise Day Care Center), spontaneous expression of thoughts and feelings was the dominant goal of children's initiations to teachers. Children also initiated social contacts with teachers for purposes of seeking help with a task or activity, obtaining recognition for themselves or their accomplishments, and seeking information and objects.

From the point of view of educators as well as parents, benefits derived from preschool experiences for young children certainly include the extended opportunity for social interaction with age mates. The results of this research indicate that although there were large differences among the settings in the incidence of child to child association units, peer interaction was strongly evident in all the schools. Spontaneous expression of thoughts and feelings, protection of oneself or one's activity from encroachment of others, and seeking activity with another child were common purposes of peer interaction in all settings. These results show that, aside from being recipients of children's spontaneous expressions, teachers and peers served very different purposes as social objects for children. The teacher was a source of supplies, information, recognition, and assistance, the peer a source of companionship as well as disruption and interference in activities. The disparate social utility of teachers and children may explain why teachers were uncomfortable in the participator activity role and suggests that the teacher's function in the classroom seldom permits her to assume it.

Child to teacher association units were relatively low in overall occurrence in all six environments, a finding which might simply be explained by the fact that peers are much more numerous social objects than are teachers in preschool settings. The proportion of child to adult communications might well be expected to be quite different in settings having different child to adult social characteristics, such as the home environment.

The findings on method and response characteristics of social interchanges indicated that the preschools studied were environments where mild coercion was most prominent, and strong pressures, especially on the part of teachers to children and children to teachers, were rare. The results of this study also showed that the more coercive methods led to more noncongruent responses. The harsher the attempt, the less willing were recipients to acquiesce or comply. Certainly the overall moderate nature of social influences in these classrooms contributed to the fact that, in general, social interaction was harmonious and compatible and teachers' and children's desires met with satisfaction.

When influence attempts were strongly coercive, they were linked to particular environmental circumstances. Teachers' high pressure methods were associated with attempts to control deviant behavior. When children engaged in activity or self-protection, sought objects, or aggressed against peers, they directed strongly coercive methods to their classmates. It is likely that the increased incidence of noncongruent responses in the face of strong pressure is due to the fact that both of these qualities tend to appear in situations characterized by conflict between the goal of the agent and desire of the target. In view of this finding, authoritarian versus permissive teacher moves must be viewed as not only a function of teacher characteristics, but also as the result of environmental circumstance. The greater the extent to which situations occur in which individuals stray from the expectations of others, the more likely it is that there will be power assertion and nonconforming responses.

It is certainly possible and probable that the teacher's personality in part determines whether she will frequently get herself into situations in which she controls disruptive behavior. Perhaps the personalities of some teachers lend them to have expectations that are too high for young children, and therefore they see deviance everywhere. Previous studies have shown that characteristics of children also may influence the extent to which they are deviates in the classroom. For example, Berk (1971) found that teachers were much more likely to interrupt the behavior of boys than girls.

Though the findings of this study do not discount the importance of personal characteristics, additional research indicates that environmental variables also play an important part in determining the extent to which teachers control deviance in the classroom. Kounin (1970) found that "desist techniques" of teachers tend to pile up during transitions, a finding which is in agreement with data analyses of this investigation which suggest that transitions encourage teachers' deviance control association units. In addition, in this study deviance control appeared high during activities which required high levels of self-control and very prescribed behavior on the part of children -- during washing, toileting; waiting; eating; and media experiences, particularly sitting still to watch television. They were also high during activities which permitted children greater behavioral laxity, such as wandering, exploring and playground activities. Large group activities and activities which did not encourage children's actions to be coordinated and interdependent also fostered teachers' deviance control. When peer interaction was not part of the prescribed behavior of the activity setting, perhaps it was somewhat more likely to be viewed as disruptive by teachers.

It is also notable that a number of the same activity characteristics which were related to teachers' attempts to control disruptive behavior also fostered the expression of aggression among children. Nonactive, resting, eating, waiting, and large group activities fell into this category. This finding suggests that aspects of these activities in the settings studied placed constraints upon children which they could not handle, or that the structure of these activities prevented children from attaining satisfaction of their desires, and the result was an increase in attacks against peers. Partial support for the latter interpretation is given by the finding that the larger the group size of an activity, the less congruent teachers' response to children became. The ratio of teachers to children in large group activities is one feature which made it impossible for teachers to adequately satisfy the desires of children. In addition, large group activities were almost invariably teacher-initiated, and it is rare to find a large number of children who all wish to engage in the same activity at once.

Like deviance control, emphasis by teachers on procedural-structuring matters primarily occurred in activities where large groups of children were involved and where the activity implied prescribed children's behaviors (as in resting, dressing, eating, waiting and organized group activities). These activities often necessitated teacher initiation as well as maintenance either through teacher assistance or supervision of children.

Considering nonmaintenance association units on the part of teachers, cognitive inputs involving such behavior as naming, describing, and manipulation of numbers were prominent in table, book-related, and arts and crafts activities. Among teachers' social units, recognition was stressed in arts and crafts, where children's products drew attention and praise, and in resting where nonactive behaviors necessitated great self-restraint on the part of active preschool children, and this was acknowledged by their teachers. Children's social knowledge about themselves and their associates was fostered by teachers in dramatic play and book-related activities, and as might be expected, cultural habit inputs were most prominent during bodily maintenance activities of washing, toileting and eating and physical units during dressing, playground activities, and music.

In large part, the prominent child to child association unit goals of spontaneous expression of thoughts and feelings and activity, self-protection were fostered by different activity qualities than the large group bodily maintenance activities which encouraged peer aggression. Spontaneous conversation among children was conspicuous in activities in which the teacher leadership pattern was not prominent and appeared particularly evident during resources of eating, arts and crafts, and animal and plant care. It is possible that particular milieu aspects of these activities, such as novel materials and seating arrangements which bring children together in close and prolonged proximity to one another, lead to an increase in spontaneous expression among peers. Activity, self-protection association units were encouraged in small group, child-initiated activities where materials and equipment may have been in strong demand among participating children. Block building, playground, and book-related resources were ones in which activity, self-protection tended to be prominent.

Finally, if teachers wish to encourage an overall prevalence of peer interaction in the classroom, this study indicates that providing opportunities for dramatic play; playground activities; block building; animal care; and reciprocally coordinated, small group, child-initiated activities without the presence of a teacher can be of help. If teacher inputs to children are viewed as having greater importance, then music, book-related, bodily maintenance, organized group activities; transitions; and large grouping arrangements which are teacher-directed and initiated will assist in achieving this goal. The first group of activity characteristics brings to mind an image of a traditional nursery school which places greater emphasis upon the broad area of socialization as opposed to the development of specific skills. The second constellation of activity qualities describes a highly structured nursery school curriculum where specific skill development assumes prime importance. Since the activity characteristics which foster children's interaction with one another do not overlap with those encouraging teacher to child associations, the findings suggest that many preschool activity structures may encourage either peer inputs or teacher inputs, one to the exclusion of the other.

Variations among the Preschool Environments

The settings participating in this investigation displayed sizable differences in activity unit and social interaction qualities, indicating that preschool experiences for young children vary in important ways depending upon the nature of the environment which they inhabit. In this section, the activity and interaction environmental variations are summarized and interpreted in light of the unique characteristics of each setting.

The Franchise Day Care Center

The distinguishing general activity features of this environment were large cluster, teacher-initiated activities which were either minimally or actively teacher directed. In this environment, more effort was expended by teachers on setting maintenance than any other setting. The high degree of teacher structure which was imposed upon this setting is understandable in view of the design of this preschool facility (see figure 2, page 14) in relation to the large number of children who were in attendance (sometimes as many as seventy-five).

The large, undivided oblong room offered a paucity of equipment and materials for such a large number of children. Materials which suggested child-initiated and structured activities were either scarce or on shelving, out of reach of the children. For example, in the block corner, few blocks were available as compared with the number of children who often desired to build with them. A kitchen area in one part of the room suggested dramatic play, but no pots and pans, table settings, or dress-up clothing were in open view. As a result, during their spare moments, children could be seen climbing or sitting on the kitchen furniture. When art activities were presented to the children, they were generally highly structured, not only by the teacher, but also by the materials. For example, at Halloween time, children all colored a pumpkin printed on a piece of paper with an orange crayon. There was no area of the room in which art materials --easels, paint, paper, crayons and scissors--were made available to the children for their own activity initiation.

In between activities, large numbers of children seemed to mill about, unable to involve themselves in activities. Observers for this study frequently had the experience of finding a child who was unhappy wrapped around one of their legs. Not knowing to which teacher he belonged, in time of need, a child looked for the nearest adult who was available.

Although an open classroom proponent would have been highly critical of The Franchise Day Care Center program, Mrs. F's purposes emphasized prekindergarten preparation for public school attendance and were therefore consistent with the teacher-initiated and directed nature of activities. Mrs. F also acknowledged in her interview that because of the large number of children present, activities were difficult to control. She also expressed the feeling that there were too many children enrolled at one time but also stated that for business reasons, the maximum number of children which licensing standards permitted at one time had to be admitted into the Center.

Nevertheless, the general impression presented by The Franchise Day Care Center was one in which admitting a large number of children into an environment not well designed to accommodate all of them was consistent with the operation of a business but not with the needs of children. This conclusion is not meant to suggest that teachers were insensitive to children's feelings and desires. On the contrary, to the extent that the environment permitted teachers to deal individually with children, the opposite was true. Yet the results of this study indicate that teachers' communications to children concentrated upon structuring, deviance control and more than other environments were directed at multiple rather than single individuals. It is likely that the behavior of teachers was as much shaped by the characteristics of this environment as was the behavior of children.

That the needs of such a large number of children were often not met by the environment is best illustrated by an example. Media experiences in which total class groups of children watched television was a prominent activity pattern in The Franchise Day Care Center. Almost without variation, it consumed the first half hour of each day. When seventy children were gathered around a television with an ordinary, living-room size screen, the ten or twenty children who were close to the set were attentive; the remaining fifty to sixty children were not. The resulting disruptive, nonattentive behavioral outcome of this activity in part explains why teacher deviance control and attacks among children were high in the environment.

Head Start

The findings of this study reveal this environment to be one which, as compared with other settings, emphasized bodily maintenance and total class group, teacher-initiated activities which were either activly or minimally led by the teacher. Of all participant schools, Head Start offered the least activity variety to children. This finding may be surprising in view of the fact that the Head Start classroom (see figure 4, page 18), considering that only fourteen children inhabited it, was spacious and well equipped with materials which suggested a wide variety of preschool activities. The results of this study reveal that children did use the housekeeping corner for dramatic play more than any other area of the classroom during their free time. This is most likely due to the wide variety of dramatic materials and equipment which were available in it, as well as the arrangement of the furniture which suggested the realities of a home living situation.

The restriction of activity diversity; the emphasis upon total class, teacher-structured activities; the stress on communications between teachers and children and de-emphasis upon peer interaction is perhaps best explained by the head teacher's lack of previous experience with preschool children and consequent application of traditional elementary school classroom procedures, for which she had training and experience, to this setting. The fact that Mrs. H was groping for a curricular rationale with which to revise her program in the direction of more child-initiated and directed activities was evident in her interview responses. She stated that she desired the classroom to look entirely different. A conversation between the principal investigator and the director of the Head Start program the year following the one in which the observations were made revealed that Mrs. H may have made considerable progress in realizing her program goals by opening up to the children the activity areas so readily available as part of the physical design of the classroom.

The Montessori Nursery School

The Montessori Nursery School distinguished itself as the setting in which children experienced the most activity pattern variety. It is likely that this finding is due to the fact that, in this setting, children had extensive opportunities to select activities for themselves. Child-initiated manipulative table activities involving single children or pairs of children were common activity patterns in this environment, as would be expected in a Montessori school. Other behavioral outcomes consistent with the Montessori philosophy of independent mastery on the part of the child included a relatively low incidence of teacher communications to children, a low incidence of teacher-initiated units having social goals in general, and, in particular, very few units which praised or recognized children for their accomplishments; and a preponderance of teacher-initiated units which were directed at single children rather than groups of children.

Contrary to what might be expected in Montessori settings, the stress on individual accomplishment in the Montessori Nursery School did not interfere with children's opportunities to associate with one another. In fact, a greater stress on children's associations with their peers occurred in this environment than in any of the other settings, a finding which is related to the high incidence of child-structured and initiated activities, characteristics which were found in this investigation to foster peer interaction.

Teachers' deviance control units were also accentuated in this setting, a finding which may be considered surprising in view of the fact that the Montessori School did not accentuate activity characteristics which appeared related to control of disruptive behavior. The retionale for this finding must lie in aspects of the environment which were not tapped by the category system. The expectations by Montessori teachers for children to carry out activities in prescribed ways and the extent to which children deviate from these expectations in activities which are not actually teacher-directed may explain this finding.

Teacher goals became realities in the Montessori setting, more so than any other participating preschool. The congruence between teacher ideals and actual practice is attributed to a well-defined preschool philosophy and set of curricular purposes which guide the Montessori Teacher's daily contact with children. The Montessori teacher knew clearly what the activity purposes should be in her classroom and responded to the interview questions asked of her in this investigation with a definiteness and a consistency among the rationales for her activity choices which was missing in most of the other interviews. This clarity of purpose, probably rare among preschool teachers, may be largely responsible for the successful realization of activity purposes in terms of classroom process. An imperative step in achieving preschool curricular goals involves a careful analysis of the classroom environment in order to answer the questions, "What is to be taught and which activity qualities made available to children will best teach it?" There is a need for an approach appropriate to the preschool level which assists teachers in defining their curricular objectives.

Community Day Care Center

Although the Community Day Care Center was similar to Head Start and the Franchise Day Care Center in that a majority of the activities were teacher-initiated, a broader range of prominent activity resources occurred in the Community setting than in either of the other two environments. Eating, media experiences, arts and crafts, dramatic play, and table activities were typical resources which occurred. A partial explanation for greater variety of activity purposes, despite a heavy emphasis upon teacher activity initiation, may be that the daily events in this setting were very carefully preplanned by the director and the teachers, and groups of children moved smoothly through a sequence of activities throughout the entire morning. This preplanning of activities very likely enabled children to engage in a wider variety of activities within a days time, although the activity sequences from one day to the next were very similar in the Community Day Care Center. Since the activity events of the day were determined beforehand, transition time was reduced to a minimum in this program. Often teachers transformed what would have been a transitional period in another setting into an additional activity. For example, the time between washing, toileting and serving of lunch became a period in which children listened to stories read by teachers or individually looked at books in the library. In addition, the physical arrangement and great spaciousness of this environment must have contributed to the fact that planned activities flowed into one another with little time spent in transition. Each teacher with each group was able not only to occupy a separate activity area, but also a separate room. Quiet, sedentary activities were physically separated from active play. Every activity seemed to have not only a time, but also its own special place of occurrence.

The finding that teachers in the Community Day Care Center evidenced a comparatively large number of communications to single children rather than multiple children and devoted least effort to cognitive inputs and most effort to social inputs is consistent with the interview material. Mrs. C emphasized her belief in the importance of providing an environment with a home-like rather than school-like quality, a setting which provided a social substitute for the family while children were apart from their parents.

Laboratory Nursery School Classrooms No. 1 and No. 2

Close proximity to one another, guidance from the same early childhood director, and similarly arranged and equipped classrooms led the Laboratory School environments to be very much alike in activity characteristics. Dramatic play; table activities; child behaviors of performing, acting out and manipulating; total class and small cluster grouping arrangements, and both teacher- and child-initiated activities were prominent occurrences in each of these settings.

The difference between these two environments appeared to be a larger proportion of time devoted to minimally teacher led activities in Laboratory Classroom No. 2 and a larger proportion of time devoted activities without the teacher present in Classroom No. 1. This finding is understandable in view of the fact that Mrs. B of Classroom No. 2 had made a rather abrupt and difficult transition from teaching in a highly structured preschool program for disadvantaged children to a nursery school setting purporting to foster an open classroom approach. This change was a much more gradual, self-imposed one for Mrs. A.

Considering the philosophy underlying education of young children in these classrooms, the proportion of time spent in activities initiated and actively led by the teacher can be considered surprising. It is interpretable in terms of the attempt of the early childhood director to move the classrooms gradually, rather than abruptly, in the direction of a new curricular approach. Though the teachers reported in the interviews that they were changing, they still held on to ways of conducting activities that had been comfortable in the past. This is one of the factors that may be responsible for the finding that the Laboratory Nursery School settings seemed often to fall at the norm with respect to activity characteristics as compared with the other environments. They struck a happy medium between an emphasis upon teacher activity initiation and direction and child initiation and activity control. However, considering the stress which has been placed upon change, in one or two years time, these two settings may indeed look like very different activity environments for children than they appear to be now.

Conclusion

In sum, the accomplishments of this research study were as follows:

1. Design of an observational system in order to study preschool activity settings and social interaction.

2. Collection of naturalistic description of the behavior of 103 children in six preschool environments varying in curricular emphasis and composition of children. The naturalistic records as well as the coded data have been preserved so that they may be useful in inquiring into additional research questions.

3. Analysis of these behavioral records to yield findings on activity qualities, social interaction, and their relationship to one another.

4. By comparing teacher interview and obervational results, a study of the extent to which teachers activity purposes are realized in terms of classroom practice.

Future directions include additional analysis of the present data and the development of new research designs in order to create more controlled methods for examining the activity quality and social interaction relationships suggested by this investigation.

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APPENDIX A

Sample Observation Schedule

Sample Observation

Coding of Sample Observation

SAMPLE OBSERVATION SCHEDULE

	Monday	Tuesday	Wednesday	Thursday	Friday
Observation Period 1	Janice A. Diane A. Morris B. Susan G.	Valerie S. Darryl S. John T. Nancy Y.	Donald M. Steven N. Joanne P. Paul R.	Bobby G. Annette H. Renee J. David K.	Susan G. Morris B. Diane A. Janice A.
Observation Period 2	Bobby G. Annette H. Renee J. David K.	Janice A. Diane A. Morris B. Susan G.	Valerie S. Darryl S. John T. Nancy Y.	Donald M. Steven N. Joanne P. Paul R.	David K. Renee J. Annette H. Bobby G.
Observation Period 3	Donald M. Steven N. Joanne P. Paul R.	Bobby G. Annette H. Renee J. David K.	Janice A. Diane A. Morris B. Susan G.	Valerie S. Darryl S. John T. Nancy Y.	Paul R. Joanne P. Steven N. Donald M.

	Monday	Tuesday	Wednesday	Thursday	Friday
Observation Period 1	Nancy Y. John T. Darryl S. Valerie	Paul R. Joanne P. Steven N. Donald M.	David K. Renee J. Annette H. Bobby G.		
Observation Period 2	Susan G. Morris B. Diane A. Janice A.	Nancy Y. John T. Darryl S. Valerie	Paul R. Joanne P. Steven N. Donald M.		
Observation Period 3	David K. Renee J. Annette H. Bobby G.	Susan G. Morris B. Diane A. Janice A.	Nancy Y. John T. Darryl S. Valerie S.		

Sample Observation

NAME OF CHILD: Diane
SCHOOL: Laboratory School Nursery School
Classroom 2
DATE: February 15, 1972
OBSERVATION PERIOD: 1
TIME: 9:40 - 9:50
OBSERVER: L.B.

Activity Unit 1 (455)

Diane is working at matching circles to outlines (9:40) on a piece of paper at a small table with four other children.

Mrs. B. is at the table with the children.

Previously, Mrs. B. had prepared the activity and encouraged Diane to join in, as she had been wandering around the room, seemingly looking for something to do.

Diane gets up from the table and walks purposefully across the room.

She picks up four boxes of crayons on the shelf.

She goes back across the room, over to the art table.

Diane to give crayons to children

(020) Association Unit 1

Method 1a
Response 1a

Diane passes a box of crayons around to each child at the table.

The children each take the crayons.

Diane does this spontaneously, with no prodding from the teacher.

Diane to show teacher her circles

(009) Association Unit 2

Method 2a
Response 2a

Diane says, "I've got some," pointing to the circles on her paper, apparently seeking the attention of the teacher.

The teacher ignores Diane.

She is busy with another child.
(9:41)
Diane goes away from the table and back to the shelf where the crayon boxes are stored.

Diane picks up a box of crayons, this one apparently for herself.

She goes back across the room to the table where the children are matching circles.

Diane sits down at the table.

She looks around.
(9:42)
She opens her box of crayons.

She picks up a blue circle and says something about it (her speech is not understood by the observer).

The teacher does not respond to her.

Diane places two circles on her paper.

Then she puts another one on.

(035) Association Unit 3 — The teacher comes over and says to her, "How many do you have?"
(9:43)
Method 3a, Response 3a — Diane doesn't answer.

Teacher to get Diane to match circles — Method 3b, Response 3b — The teacher takes Diane's finger and moves it from one circle to another, counting, "1, 2, 3. How many more do you need?" she says. Diane picks up another circle and puts in on her paper.

Method 3c, Response 3c — The teacher says to her, "Good. You found it." (There are four circle outlines on the

		paper).
		The teacher says to Diane, "Find another color that is the same as your circles."
	Method 3d	The teacher continues, "Trace around the circles with your crayons."
	Response 3d	Diane finds the appropriately colored crayon.
		Diane begins to trace around the circles with her crayons.
		The teacher begins to work with another child.
		Then she scribbles in the center of one of the circles.
		Diane stops for a moment and looks at the other children at the art table.
		Then Diane traces around the outline of a circle again.
		(9:44) Then she goes back to scribbling in the center of the circles.
Diane to get teacher to notice art work	(004) Association Unit 4	Diane says, "Look at mine," to the teacher.
	Method 4a Response 4a	The teacher says to her, "All right, Diane" and looks, briefly.
		Diane picks up another crayon in addition to the one she is holding.
		She begins to bang both crayons on the table.
Teacher to get Diane to stop banging crayons	(007) Association Unit 5 Method 5a Response 5a	The teacher comes over, firmly takes one of the crayons from her, and puts it down in the box in order to get Diane to stop banging them.

Diane says, "No", and takes the blue crayon back out of the box.

The teacher pays no attention and leaves the table to go to some children in another area of the classroom.

(9:45)

Diane stops working with her crayons for a while and looks around at some of the other activity in the classroom.

She continues to look around the classroom.

(020)
Association
Unit 6

Diane reaches over another girl's circle in an attempt to take some of the paste off her paper.

Diane to get paste from girl

Method 6a

She reaches quickly, as if to try to get the paste away before the girl can stop her.

Response 6a

The other girl hits Diane's hand and angrily pushes it away.

Diane reaches over to the other girl's circle again and takes some paste off her circle.

(9:46)

The teacher sees Diane take the other girl's paste.

She comes back over to the table.

(023)
Association
Unit 7

The teacher says gently, "Don't take someone else's paste, Diane. I'll get you your own."

Method 7a

Teacher to get Diane to stop taking girl's paste

Response 7a

Diane stops taking the girl's paste and waits patiently for the teacher to bring her the paste.

	Method 7b	The teacher gives Diane her own bottle of paste.
	Response 7b	Diane takes the paste.
Teacher to get Diane to paste circles	(031) Association Unit 8	The teacher says, "You paste the circle and put it here on the paper." showing Diane how
	Method 8a	to use the paste by motioning with her hands.
	Response 8a	Diane touches the paste and begins to smear it on the back of her circle. She pastes it down on the page. (9:47) She takes some more paste. She smears it around on another circle. Then she pastes the circle down on the page. The teacher watches her.
Diane to show teacher art work	(005) Association Unit 9 Method 9a Response 9a	Then Diane calls, "Teacher, I've got two," soliciting the teacher's approval for what she has done.
Teacher to get Diane to count how many more circles to paste	(006) Association Unit 10	Then the teacher says, "How many more do you need, Diane?"
	Method 10a Response 10a	Diane says, "This one right here," indicating that she has one more to paste.
	Method 10b Response 10b	The teacher says, "That's good, that's good." Then she turns to help another child at the table.
		Diane begins to smear paste around on another circle. She pastes it down on the page.

Diane to show teacher art work	(004) Association Unit 11 Method 11a Response 11a	She says, "Teacher, I'm done. Teacher, I'm done." The teacher ignores Diane because she is busy with some other children.
Girl to hit Diane	(003) Association Unit 12 Method 12a Response 12a	A girl comes over and hits Diane with the end of her hat. Diane doesn't respond to her.
Teacher to announce to children Diane is finished	(003) Association Unit 13 Method 13a Response 13a	Then the teacher says, "Diane has them all finished" to the children at the table. This seems to be both a complement to Diane and a signal to the children to terminate the activity. Diane smiles proudly.
Activity Unit 2	(055)	Diane goes around the table, picking up unused circles beginning to clean up. All of the children in the class are now putting things away, including two other small groups of which Diane was not a member. The teachers are helping with clean-up.
Teacher to make sure Diane is finished	(008) Association Unit 14 Method 14a Response 14a	Then one teacher says to Diane, "Did you get your's glued?" making sure that all the children have finished before they leave the table. (9:48) The teacher picks up Diane's page and says, while Diane stand there, looking at her passively, "Yes you did."

Teacher to get Diane to put circles away

(010) Association Unit 15

Method 15a
Response 15a

Then she says to Diane, "Bring the circles over here," telling Diane to put the unused circles away.

Diane puts the circles where the teacher has indicated.

Diane wanders over to the curtain on the windows, opens it, and pulls it closed.

Boy to get curtain from Diane

(003) Association Unit 16

Method 16a
Response 16a

Another boy says demandingly to her, "Gimme the curtain."

Diane ignores him, and she opens the curtain again.

Diane to tell teacher about art work

(017) Association Unit 17

Method 17a
Then she goes over to one of the teachers and tells her something about the circles that she has pasted, although exactly what

Response 17a
she says is not recognizable.
(9:49)
The teacher says to her, "What did you make?"

Method 17b
Diane answers, "I made a circle," rather

Response 17b
impatiently, as the teacher had not understood her the first time.

The teacher listens quietly to Diane.

Activity Unit 3 (050)

Then Diane goes over to a corner of the room and begins to play with one of the music boxes.

She repeatedly pulls the cord which makes the music box play.

She continues to pull the cord.

She is alone at the table.
(9:50)

	Activity Unit							
	Utilization of Resources	Child Behavior	Group Size	Coordination of Children's Actions	Teacher Leadership Pattern	Activity Initiation	Duration (seconds)	Goal
Activity Unit 1	Arts and Crafts	Drawing, Making	Small Cluster	Not Coordinated	Watcher, Helper	Teacher	455	
Assn. Unit 1								Peer Relation
Method-Response 1a								
Assn. Unit 2								Recognition from
Method-Response 2a								
Assn. Unit 3								Cognitive
Method-Response 3a								
Method-Response 3b								
Method-Response 3c								
Method-Response 3d								
Assn. Unit 4								Recognition from
Method-Response 4a								Deviance Control
Assn. Unit 5								
Method-Response 5a								Objection from
Assn. Unit 6								
Method-Response 6a								Deviance Control
Assn. Unit 7								
Method-Response 7a								
Method-Response 7b								
Assn. Unit 8								Physical
Method-Response 8a								
Assn. Unit 9								Recognition from
Method-Response 9a								
Assn. Unit 10								Cognitive
Method-Response 10a								
Method-Response 10b								
Assn. Unit 11								Recognition from
Method-Response 11a								
Assn. Unit 12								Aggress Against
Method-Response 12a								
Association Unit 13								Recognition
Method-Response 13a								
Activity Unit 2	Transition	Readying	Total Class	Not Coordinated	Watcher, Helper	Teacher	055	
Assn. Unit 14								Procedural Structure
Method-Response 14a								
Assn. Unit 15								Procedural Structure
Method-Response 15a								
Assn. Unit 16								Objects from
Method-Response 16a								
Assn. Unit 17								Recognition from
Method-Response 17a								
Method-Response 17b								
Activity Unit 3	Table Activities	Manipulating	Single Child	Not Coordinated	Not in Activity	Child	050	

CODING OF SAMPLE OBSERVATION OF DIANE

Association Unit				Method			Response		
Specificity	Agent	Target	Duration (seconds)	Coerciveness	Verbal-Nonverbal	Agent	Congruence	Verbal-Nonverbal	Target
Multiple	Diane	Children	020						
				Helping,Giving	Nonverbal	Diane	Accepting	Nonverbal	Children
Single	Diane	Teacher	009						
				Informing	Verbal	Diane	Unresponsive Ignoring	Nonverbal	Teacher
Single	Teacher	Diane	035						
				Requesting	Verbal	Teacher	Unresponsive Ignoring	Nonverbal	Diane
				Requesting	Verbal	Teacher	Complying Correctly	Nonverbal	Diane
				Confirming	Verbal	Teacher	No Response	Nonverbal	Diane
				Requesting	Verbal	Teacher	Complying Correctly	Nonverbal	Diane
Single	Diane	Teacher	004						
				Requesting	Verbal	Diane	Accepting	Verbal	Teacher
Single	Teacher	Diane	007						
				Blocking	Nonverbal	Teacher	Refusing	Verbal	Diane
Single	Diane	Girl Child	020						
				Attacking	Nonverbal	Diane	Attacking	Nonverbal	Girl Child
Single	Teacher	Diane	023						
				Requesting	Verbal	Teacher	Accepting	Nonverbal	Diane
				Helping,Giving	Nonverbal	Teacher	Accepting	Nonverbal	Diane
Single	Teacher	Diane	031						
				Requesting	Verbal	Teacher	Complying Correctly	Nonverbal	Diane
Single	Diane	Teacher	005						
				Informing	Verbal	Diane	New Initiation	Verbal	Teacher
Single	Teacher	Diane	006						
				Requesting	Verbal	Teacher	Complying Correctly	Verbal	Diane
				Confirming	Verbal	Teacher	No Response	Nonverbal	Diane
Single	Diane	Teacher	004						
				Informing	Verbal	Diane	Unresponsive Ignoring	Nonverbal	Teacher
Single	Girl Child	Diane	003						
				Attacking	Nonverbal	Girl Child	Unresponsive Ignoring	Nonverbal	Diane
Multiple	Teacher	Diane	003						
				Informing	Verbal	Teacher	Accepting	Nonverbal	Diane
Single	Teacher	Diane	008						
				Informing	Verbal	Teacher	Watching, Listening	Nonverbal	Diane
Single	Teacher	Diane	010						
				Requesting	Verbal	Teacher	Complying Correctly	Nonverbal	Diane
Single	Boy Child	Diane	003						
				Demanding	Verbal	Boy Child	Unresponsive Ignoring	Nonverbal	Diane
Single	Diane	Teacher	017						
				Not Clear	Verbal	Diane	Questioning	Verbal	Teacher
				Informing	Verbal	Diane	Watching, Listening	Nonverbal	Teacher

APPENDIX B

Teacher Interview Schedule

Teacher Interview Schedule

(The interviewer displays four small boxes to the teacher. They are)
(labeled (1) most time; (2); (3); and (4) least time. They are for the)
(purpose of assisting the teacher in sorting categories on the activity)
(dimensions as she would like them to occur in her classroom.)

Introduction: The purpose of these questions is to find out how you would ideally like to arrange activities in your classroom. Answer these questions in terms of what you would like most of all to happen.

1. Here are fifteen activities which may occur in your preschool classrooms.

   (The interviewer shows the teacher the fifteen cards with categories)
   (of activity dimension, utilization of resources printed upon them.)
   (If a teacher does not understand the meaning of any of the cate-)
   (gories, the interviewer explains.)

   Some teachers believe in limiting the activities to a few. Others like a wide variety of activities to be available. Some teachers prefer that children spend much time with specific activities. Others like to see children sample a wide variety of activities.

   A. Sort the activities into these four boxes according to how much time you would like to allocate to them in your classroom. You may place any number of cards in a box. Or, you may leave boxes empty.

Most Time	(2)	(3)	Least Time

   B. (The interviewer takes each box with sorted cards in it separately,)
   (in order from "most time" to "least time", and says:)

   Arrange the cards you have placed in this box in order, with the activity you would like most to occur first, and the one you least wish to occur, last.

   C. (The interviewer takes the two cards which the teacher has ranked)
   (highest and the two cards which she has ranked lowest and asks:)

   (1) Why would you like these three activities to occur most in your classroom?

   (2) Why would you like these three activities to occur least in your classroom?

2. Here are twelve child behaviors which may be encouraged by activities in the classroom.

(The interviewer shows the teacher twelve cards with the categories)
(of activity dimension: child behavior printed upon them. If the)
(teacher does not understand the meaning of any of the categories,)
(the interviewer explains.)

Some teachers like to plan activities which encourage many of these child behaviors. Other teachers prefer to plan activities which concentrate on a few of these behaviors.

A. Sort the child behaviors into these four boxes according to how much time you would like to devote to them in your classroom.

Most Time	(2)	(3)	Least Time

B. (The interviewer takes each box with sorted cards in it separately,)
(in order from "most often" to "seldom" and says:)

Arrange the cards you have placed in this box in order, with the activity you would like to occur most to the one you would like to occur least.

(The interviewer takes the three cards which the teacher has)
(ranked highest and the three cards which she has ranked lowest)
(and asks:)

(1) Why would you like these three child behaviors to be encouraged most in your classroom?

(2) Why would you like these three child behaviors to be encouraged least in your classroom?

3. Here are five child grouping arrangements in which activities may be organized in the classroom.

(The interviewer displays the cards with the categories for the)
(activity dimension: group size printed upon them. If the teacher)
(does not understand the meaning of any of the categories, the)
(interviewer explains.)

In planning classroom activities, teachers may prefer some child grouping arrangements to others.

A. Sort the grouping arrangements into these four boxes according to how much time you would like to devote to them in your classroom.

Most Time	(2)	(3)	Least Time

B. (If the teacher has placed more than one card in any of the boxes,)
(the interviewer takes each one of these boxes separately, in)
(order from "most time" to "least time" and says:)

Arrange the cards you have placed in this box in order, from the grouping arrangement you would like to encourage most to the one you would like to encourage least.

C. (The interviewer takes the card which the teacher has ranked)
(highest and the card which she has ranked lowest and asks:)

(1) Why would you like this grouping arrangement to occur most in your classroom?

(2) Why would you like this grouping arrangement to occur least in your classroom?

4. Here are three possible ways in which activities may encourage children's actions to be interrelated with one another. An activity which encourages children's actions to be coordinated in a simultaneous fashion requires that children all perform the same actions in unison. An activity which encourages children's actions to be interrelated in a reciprocal fashion requires that children assume complementary roles. Non-coordinated actions refer to activities in which the child's actions are of a solitary nature; there is no activity requirement that children attend to the actions of their classmates.

A. Sort these action coordination possibilities into the four boxes according to how much time you would like to devote to them in your classroom.

Most Time	(2)	(3)	Least Time

B. (If the teacher has placed more than one card in any of the boxes,)
(the interviewer takes each one of these boxes separately, in)
(order from "most" to "least" and says:)

Arrange the cards you have placed in this box in order, from the category you would like to encourage most to the one you would like to encourage least.

C. (The interviewer takes the card which the teacher has ranked)
(highest and the card which she has ranked lowest and asks:)

(1) Why would you like this category of coordination of children's actions to occur most?

(2) Why would you like this category to occur least?

5. Here are four possible teacher leadership patterns which teachers may use in organizing activities in the classroom.

(The interviewer shows the teacher four cards with the categories of)
(activity dimension: teacher leadership pattern printed upon them.)
(If the teacher does not understand the meaning of any of the)
(categories, the interviewer explains.)

Some teachers prefer to play a more active role in classroom activities, whereas others prefer to play a minimal role.

A. Sort the teacher leadership patterns into these four boxes according to how much time you would like to devote to them in your classroom.

Most Time	(2)	(3)	Least Time

B. (If the teacher has placed more than one card in any of the boxes,)
(the interviewer takes each one of these boxes separately, in)
(order from "most time" to "least time" and says:)

Arrange the cards you have placed in this box in order, from the teacher leadership pattern you would like to encourage most often to the one you would like to encourage least often.

C. (The interviewer takes the card which the teacher has ranked)
(highest and the card which she has ranked lowest and asks:)

(1) Why would you like this teacher leadership pattern to occur most?

(2) Why would you like this teacher leadership pattern to occur least?

6. Here are two ways in which activities may be initiated in the classroom.

(The interviewer shows the teacher the two cards with categories of)
(activity dimension: activity initiation printed upon them. If the)
(teacher does not understand the meaning of the categories, the)
(interviewer explains.)

Some teachers believe that it is best for children to select their own activities, whereas, other teachers believe that it is best for teachers to initiate activities.

A. Sort these teacher leadership patterns into the boxes according to how often you would like them to occur in your classroom.

Most Time	(2)	(3)	Least Time

(1) Why would you like this category to occur most in your classroom?

(2) _Why would you like this category to occur least in your classroom?_